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CFETP 2A5X3C
Parts I and II
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AFSC 2A5X3C

**ELECTRONIC WARFARE
SYSTEMS**



**CAREER FIELD EDUCATION
AND TRAINING PLAN**

CAREER FIELD EDUCATION AND TRAINING PLAN
ELECTRONIC WARFARE
SYSTEMS
AFSC 2A5X3C

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ELECTRONIC WARFARE SYSTEMS CAREER FIELD EDUCATION AND TRAINING PLAN

PART I

PREFACE

1. This Career Field Education and Training Plan (CFETP) is a comprehensive education and training document that identifies life-cycle education/training requirements, training support resources, and minimum core task requirements for this specialty. The CFETP will provide personnel a clear career path to success and instill rigor in all aspects of career field training. To read, review, or print a copy of current CFETP, go to the Aircraft Maintenance Homepage at:

<http://www.il.hq.af.mil/ilm/ilmm/acmaint/index.html>. *NOTE:* Civilians occupying associated positions will use Part II to support duty position qualification training.

2. The CFETP consists of two parts; both parts of the plan are used by supervisors to plan, manage, and control training within the career field.

2.1. Part I provides information necessary for overall management of the specialty. Section A explains how everyone will use the plan. Section B identifies career field progression information, duties and responsibilities, training strategies, and career field path. Section C associates each level with specialty qualifications (knowledge, education, training, and other). Section D indicates resource constraints. Some examples are funds, manpower, equipment, facilities. Section E identifies transition training guide requirements to support career field restructures.

2.2. Part II includes the following: Section A identifies the Specialty Training Standard (STS) and includes duties, tasks, and technical references to support training; Air Education and Training Command (AETC) conducted training; wartime course requirements; core tasks; and correspondence course requirements. Section B contains the course objective list and training standards supervisors use to determine if airmen satisfied training requirements. Section C identifies available support materials. An example is a Qualification Training Package (QTP) developed to support proficiency training. These QTP packages are identified in AFIND8, *Numerical Index of Specialized Educational Training Publications*. Section D identifies a training course index supervisors use to determine resources available to support training; included here are both mandatory and optional courses. Section E identifies MAJCOM unique training requirements supervisors use to determine additional training requirements unique to the MAJCOM.

3. Using guidance provided in the CFETP will ensure individuals in this specialty receive effective and efficient training at the appropriate point in their career. This plan will enable us to train today's work force for tomorrow's jobs. At unit level, supervisors and trainers will use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan.

ABBREVIATIONS/TERMS EXPLAINED

Advanced Training (AT). Formal course which provides individuals who are qualified in one or more positions of their Air Force Specialty (AFS) with additional skills/knowledge to enhance their expertise in the career field. Training is for selected career airmen at the advanced level of the AFS.

Air Force Job Qualification Standard (AFJQS). A comprehensive task list which describes a particular job type or duty position. They are used by supervisors to document task qualifications. The tasks on AFJQS are common to all persons serving in the described duty position.

Career Field Education and Training Plan (CFETP). A CFETP is a comprehensive, multipurpose document covering the entire spectrum of education and training for a career field. It outlines a logical growth plan that includes training resources and is designed to make career field training identifiable, to eliminate duplication, and to ensure this training is budget defensible.

Certification. A formal indication of an individual's ability to perform a task to required standards.

Certification Official. A person the commander assigns to determine an individual's ability to perform a task to required standards.

Continuation Training. Additional training exceeding requirements with emphasis on present or future duty assignments.

Core Task. A task Air Force Career Field Managers (AFCFMs) identify as a minimum qualification requirement within an Air Force Specialty regardless of duty position. Core task identified with an *R are optional for AFRC and ANG.

Course Objective List (COL). A publication identifying the tasks and knowledge requirements, and respective standards provided to achieve a 3-, 5-, and 7-skill level in this career field. Supervisors use the COL to assist in conducting graduate evaluations in accordance with AFI 36-2201, *Developing, Managing and Conducting Military Training Programs*.

Enlisted Specialty Training (EST). A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade airmen in each skill level of a specialty.

Exportable Training. Additional training via computer assisted, paper text, interactive video, or other necessary means to supplement training.

Field Technical Training (Type 4). Special or regular on-site training conducted by a training detachment (TD) or by a mobile training team (MTT).

Initial Skills Training. A formal resident course which results in award of a 3-skill level AFSC.

Instructional System Development (ISD). A deliberate and orderly process for developing, validating, and reviewing instructional programs that ensures personnel are taught the knowledge and skills essential for successful job performance.

Mission Ready Technician. A formal course which results in an airman receiving hands-on training and task certification of selected tasks so the individual will be immediately productive upon arrival at their first duty section.

Occupational Survey Report (OSR). A detailed report showing the results of an occupational survey of tasks performed within a particular AFS.

On-the-Job Training (OJT). Hands-on, over-the-shoulder training at the duty location used to certify personnel for both skill level upgrade and duty position qualification.

Qualification Training (QT). Actual hands-on task performance training designed to qualify an airman in a specific duty position. This training occurs both during and after the upgrade training process. It is designed to provide the performance skill/knowledge training required to do the job.

Qualification Training Package (QTP). An instructional package designed for use at the unit to qualify, or aid qualification, in a duty position or program, or on a piece of equipment. It may be printed, computer-based, or in other audiovisual media.

Resource Constraints. Resource deficiencies, such as money, facilities, time, manpower, and equipment that preclude desired training from being accomplished.

Specialized Training Package and COMSEC Qualification Training Package. A composite of lesson plans, test material, instructions, policy, doctrine, and procedures necessary to conduct training. These packages are prepared by AETC, approved by National Security Agency (NSA), and administered by qualified communications security (COMSEC) maintenance personnel.

Specialty Training Standard (STS). An Air Force publication that describes an Air Force Specialty in terms of tasks and knowledge an airman may be expected to perform or to know on the job. It serves as a contract between the Air Education and Training Command and the functional user to show which of the overall training requirements for an Air Force Specialty Code are taught in formal schools, career development courses, and exportable courses.

Training Impact Decision System (TIDES). A computer-based decision support technology being designed to assist AFCFMs in making critical judgments relevant to what training should be provided personnel within career fields, when training should be provided (at what career points), and where training should be conducted (training setting).

Upgrade Training (UGT). A mixture of mandatory courses, task qualification, QTPs, and CDCs required for award of the 3-, 5-, 7-, or 9-skill levels.

Utilization and Training Workshop (U&TW). A forum of MAJCOM Air Force Specialty Code (AFSC) Functional Managers, Subject Matter Experts (SMEs), and AETC training personnel that determines career ladder training requirements.

SECTION A - GENERAL INFORMATION

1. Purpose. This CFETP provides the information necessary for the Air Force Career Field Manager (AFCFM), MAJCOM functional managers (MFMs), commanders, training managers, supervisors, and trainers to plan, develop, manage, and conduct an effective career field training program. This plan outlines the training that individuals in AFSC 2A5X3C should receive to develop and progress throughout their career. This CFETP identifies initial skills, upgrade, qualification, advanced, and proficiency training. Initial skills training is the AFS specific training an individual receives upon entry into the Air Force or upon retraining into this specialty for award of the 3-skill level. This training is conducted by AETC at Sheppard AFB TX. Upgrade training identifies the mandatory courses, task qualification requirements, and correspondence course completion requirements for award of the 3-, 5-, 7-, and 9-skill levels. Qualification training is actual hands-on task performance training designed to qualify an airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills/knowledge required to do the job. Advanced training is formal specialty training used for selected airmen. Proficiency training is additional training, either in-residence or exportable advanced training courses, or on-the-job training, provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade. The CFETP has several purposes, some are:

- 1.1.** Serves as a management tool to plan, manage, conduct, and evaluate a career field's training program. Also, it is used to help supervisors identify training at the appropriate point in an individual's career.
- 1.2.** Identifies tasks and knowledge training requirements for each skill level in the specialty and recommends education/training throughout each phase of an individual's career.
- 1.3.** Lists training courses available in the specialty and identifies sources of training, and the training delivery method.
- 1.4.** Identifies major resource constraints which impact full implementation of the desired career field training process.

2. Uses. This plan will be used by MFMs and supervisors at all levels to ensure comprehensive and cohesive training programs are available for each individual in the specialty.

- 2.1.** AETC training personnel will develop/revise formal resident, non-resident, Training Detachment (TD), and exportable training based upon requirements established by the users and documented in Part II of the CFETP. They will also work with the AFCFM to develop acquisition strategies for obtaining the resources needed to provide the identified training.
- 2.2.** MFMs ensure their training programs complement the CFETP mandatory initial, upgrade, and proficiency requirements. Identified requirements can be satisfied by OJT, resident training, contract training, or exportable courses. MAJCOM developed training to support this AFSC must be identified for inclusion in this plan and must not duplicate other available training resources.
- 2.3.** Each individual will complete the mandatory training requirements specified in this plan. The list of courses in Part II will be used as a reference to support training.

3. Coordination and Approval. The AFCFM is the approving authority. The using MAJCOM representatives and AETC training personnel will identify and coordinate on the career field training requirements. The AETC training manager for AFSC 2A5X3C will initiate an annual review of this document by AETC and MAJCOM AFSC functional managers to ensure currency and accuracy. Using the list of courses in Part II, they will eliminate duplicate training.

SECTION B - CAREER FIELD PROGRESSION AND INFORMATION

4. Specialty Descriptions.

4.1 Specialty Summary. Analyzes malfunctions, inspects, removes, maintains, and installs B-1 and B-2 integrated Electronic Warfare systems at the organizational level. Related DoD Occupational Subgroup: 198.

4.2. Duties and Responsibilities:

4.2.1. Electronic Warfare Systems Apprentice and Journeyman: Operates B-1 and B-2 Electronic Warfare Systems, Central Integrated Test System (CITS) on the B-1, and On-Board Test System (OBTS) on the B-2, to determine operational condition. Interprets equipment operating characteristics to isolate malfunctions. Removes, installs, aligns, modifies and inspects Line Replaceable Units (LRUs) utilizing hand tools and Support Equipment (SE). Maintains, inspects, performs preventive maintenance, and repairs SE. Repairs, fabricates and installs wiring harnesses, coaxial cables, and multipin connectors. Maintains maintenance and inspection records. Records information on equipment maintenance data collection systems. Recommends methods to improve equipment performance and maintenance procedures. Handles, labels, and disposes of hazardous materials and waste according to environmental standards.

4.2.2. Electronic Warfare Systems Craftsman: Supervises, performs maintenance, conducts /certifies training in the maintenance of B-1/B-2 Electronic Warfare systems. Analyzes performance and isolates B-1/B-2 Electronic Warfare systems malfunctions. Diagnoses system operation through analyzing on-board/ground-based computerized fault detection systems tapes, aircrew-reported deficiencies, and mission results. Interprets maintenance and installation policies and procedures for Electronic Warfare equipment. Identifies maintenance problem areas from maintenance data collection systems and recommends corrective action. Interprets inspection findings for corrective action. Evaluates proposed modifications.

4.2.3. Aerospace Maintenance Superintendent: Plans, organizes, and directs maintenance activities. Establishes production controls and work standards. Analyzes reports on maintaining, installing, removing, and repairing aircraft systems to improve work methods and repair techniques. Plans physical layout of facilities. Provides for spare parts, test equipment, and other resources necessary for aircraft maintenance. Coordinates with supply, operations, and maintenance activities to improve procedures and resolve problems. Directs and controls the inspection, adjustment, removal, replacement and calibration of internal and external mounted aircraft equipment. Directs repair of aircraft systems. Establishes and checks inspection procedures. Determines extent and economy of repairs required. Inspects activities to solve maintenance, supply, and personnel problems. Analyzes inspection findings and recommends corrective actions. Solves problems and interprets operational and technical directives to ensure quality maintenance for mission requirements. Determines funding requirements and develops budgets. Advises and briefs commanders and senior staff members on all maintenance related activities. Ensures hazardous materials and waste are handled, stored, and disposed of according to environmental standards.

5. Career Skill Progression. Adequate training and timely progression from the apprentice to the superintendent skill level play an important role in the Air Force's ability to accomplish its mission. It is essential that everyone involved in training do their part to plan, develop, manage, and conduct an effective training program. The guidance provided in this part of the CFETP will ensure each individual receives necessary training at appropriate points in their career. The following narrative and AFSC 2A5X3C Career Development Flowcharts identify the career skill level progression.

5.1. Apprentice (3-level): Upon completion of initial skills training, a trainee will work with a trainer to enhance their knowledge and skills. They will utilize the Career Development Course, Task Qualification Training, and available exportable courses for continued advancement. Once task

certified, a trainee may perform the task unsupervised. Apprentices can be considered for appointment as unit trainers after completion of a formal trainer course.

5.2. Journeyman (5-level): Once upgraded to the 5-level, a journeyman will enter into continuation training to broaden their experience base. Journeymen may be assigned job positions such as quality assurance and various staff positions. Journeymen should complete available FTD courses and MAJCOM specific training. Individuals will attend the Airman Leadership School (ALS) after having 48 months in the Air Force. Journeymen will be considered for appointment as unit trainers after completion of a formal trainer course. Individuals will use their CDCs to prepare for promotion testing. They should also consider continuing their education toward a Community College of the Air Force (CCAF) degree. Time lines and requirements may vary for ANG and AFRC.

5.3. Craftsman (7-level): A craftsman can expect to fill various supervisory and management positions such as shift leader, element chief, flight/section chief, and task certifier. They can also be assigned to work in staff positions. Craftsmen should take courses to obtain added knowledge on management of resources and personnel. Continued academic education through CCAF and higher degree programs is encouraged. In addition, when promoted to TSgt, individuals will complete the Noncommissioned Officer Academy.

5.4. Superintendent (9-level): A 9-level can be expected to fill positions such as flight NCOIC, production supervisor, and various staff NCOIC jobs. Additional training in the areas of budget, manpower, resources, and personnel management should be pursued through continuing education. Individuals promoted to SMSgt will complete the Senior Noncommissioned Officer Academy. Additional higher education and completion of courses outside their career AFSC are also recommended.

6. Training Decisions: The CFETP uses a building block approach (simple to complex) to encompass the entire spectrum of training requirements for the Bomber Electronic Warfare career field. The spectrum includes a strategy for when, where, and how to meet these training requirements. The strategy must ensure we develop affordable training, eliminate duplication, and prevent a fragmented approach to training. The following training decisions were made by the MAJCOM Functional Manager and Subject Matter Experts (SMEs) at the career field Utilization and Training Workshop held at Sheppard AFB, 17-21 May 99.

6.1. Initial Skills: Three-Level Course Review/Upgrade Training: Training on the Communication and Navigational Systems was removed from the course, since those systems are to be maintained and taught by AFSC 2A5X3A. Information on the theory of operation was included for the B-2 Electronic Warfare systems.

6.2. Five-Level Upgrade Training: The number of career development courses (CDCs) was decreased from three courses to one, due to the deletion of communication and navigational systems information. The CDC will be comprised of three volumes that include information on general avionic subjects, maintenance principles, and electronic warfare systems

6.3. Seven-Level Upgrade Training. There are no current AFSC-specific 7-level CDC requirements for this career field. However, the Air Force Career Field Manager introduced and briefed the 2AX7X, Maintenance Supervision and Management CDC: Unit 1, Management Within the Maintenance Complex; Unit 2, Enlisted Specialty Training; Unit 3, Accountability for Records, Reports, and Forms; Unit 4, Supply Management; Unit 5, Logistics and Resource Management; and Unit 6, Computers and Computer Usage. The working group agreed to use this course as the career field's 7-level CDC.

6.4. Continuation Training. The purpose of the continuation training program is to provide additional training exceeding minimum upgrade training requirements with emphasis on present and future duty positions. MAJCOMs develop a continuation training program that ensures individuals in the avionic

sensor career field receive necessary training at the appropriate point in their career. The training program identifies both mandatory and optional training requirements.

7. Community College of the Air Force (CCAF) Academic Programs. Enrollment in CCAF occurs upon completion of basic military training. CCAF provides the opportunity to obtain an Associate in Applied Sciences Degree. In addition, CCAF offers the following:

7.1. Occupational Instructor Certification. Upon completion of instructor qualification training, consisting of the Basic Instructor Course (BIC) and supervised practice teaching, CCAF instructors who possess an associates degree or higher may be nominated by their school commander/commandant for certification as an occupational instructor.

7.2 Trade Skill Certification. When a CCAF student separates or retires, a trade skill certification is awarded for the primary occupational specialty. The college uses a competency based assessment process for trade skill certification at one of four proficiency levels; Apprentice, Journeyman, Craftsman/Supervisor, or Master Craftsman/Manager. All are transcribed on the CCAF transcript.

7.3. Degree Requirements: All airmen are automatically entered into the CCAF program to receive an Associates in Applied Technology Degree. Prior to completing an associates degree, the 5-level must be awarded and the following requirements must be met:

	<u>Semester Hours</u>
Technical Education.....	24
Leadership, Management, and Military Studies.....	6
Physical Education	4
General Education	15
Program Elective	15
Technical Education; Leadership, Management, and Military Studies; or General Education	
Total	64

7.3.1. Technical Education (24 Semester Hours): A minimum of 12 semester hours of Technical Core subjects/courses must be applied and the remaining semester hours applied from Technical Core/Technical Elective courses.

7.3.2. Leadership, Management, and Military Studies (6 Semester Hours): Professional military education and/or civilian management courses. Refer to the CCAF General Catalog for application of courses to the Leadership, Management, and Military Studies area.

7.3.3. Physical Education (4 Semester Hours): This requirement is satisfied by completion of Basic Military Training.

7.3.4. General Education (15 Semester Hours): Courses must meet the definition of General Education subjects/courses as provided in the CCAF General Catalog.

7.3.5. Program Elective (15 Semester Hours): Satisfied with applicable Technical Education; Leadership, Management, and Military Studies; or General Education subjects/courses, including natural science courses meeting GER application criteria. Six semester hours of CCAF degree-applicable technical credit otherwise not applicable to this program may be applied. See the CCAF General Catalog for details regarding the Associates of Applied Science for this specialty.

7.4. AETC Instructor Requirements. Additional off-duty education is a personal choice that is encouraged for all. Individuals desiring to become an Air Education and Training Command Instructor should be actively pursuing an associate's degree. It is necessary for instructors to have at least an associate's degree so the technical school can maintain accreditation through the Southern Association of Colleges and Schools.

8. Career Field Path.

8.1. Enlisted Career Path. Table 8.1 identifies career milestones for the 2A5X3C Air Force Specialty.

Table 8.1 Enlisted Career Path				
Education and Training Requirements	Grade Requirements			
	Rank	Average Sew-On	Earliest Sew-On	High Year Of Tenure (HYT)
Basic Military Training School				
Apprentice Technical School (3-Skill Level)	Amn A1C	6 months 16 months		
Upgrade To Journeyman (5-Skill Level) - Minimum 15 months on-the-job training. - Complete all 5-level core tasks on one MDS. - Complete appropriate CDC if/when available.	Amn A1C SrA	6 months 16 months 3 years	28 months	10 Years
Airman Leadership School (ALS) - Must be a SrA with 48 months time in service or be a SSgt Selectee. - Resident graduation is a prerequisite for SSgt sew-on (Active Duty Only).				
<u>Trainer</u> - Qualified and certified to perform the task to be trained. - Have attended the formal trainer's course and appointed in writing by Commander.	<u>Certifier</u> - Be at least a 5-skill level SSgt; and qualified and certified to perform the task being certified - Attend formal certifier course and appointed in writing by Commander. - Be a person other than the trainer.			
Upgrade To Craftsman (7-Skill Level) - Minimum rank of SSgt. - Complete all 5- and 7-level core tasks on one MDS. - 18 months OJT. - Complete appropriate CDC if/when available. - Advanced Technical School.	SSgt	7.5 years	3 years	20 Years
Noncommissioned Officer Academy (NCOA) - Must be a TSgt or TSgt Selectee. - Resident graduation is a prerequisite for MSgt sew-on (Active Duty Only).	TSgt	12.5 years	5 years	20 Years
	MSgt	16 years	8 years	24 Years
USAF Senior NCO Academy (SNCOA) - Must be a SMSgt or SMSgt Selectee. - A percentage of top nonselect (for promotion to E-8) MSgts attend the SNCOA each year. - Resident graduation is a prerequisite for CMSgt sew-on (Active Duty Only).	SMSgt	19.2 years	11 years	26 Years
Upgrade To Superintendent (9-Skill Level) - Minimum rank of SMSgt. - Must be a resident graduate of SNCOA (Active Duty Only).	CMSgt	21.5 years	14 years	30 Years

8.2. Base/Unit Education and Training Manager Checklist: Table 8.2. provides base and unit education and training managers a tool to track progress of individuals in the 2A5X3C Air Force Specialty.

Table 8.2. Base/Unit Education and Training Manager Checklist		
Requirements for Upgrade to:	Y	N
Journeyman - Has the apprentice completed mandatory CDCs if available? - Has the apprentice completed all 5-level core tasks on at least one MDS aircraft identified in the CFETP? - Has the apprentice completed all other duty position tasks identified by the supervisor? - Has the apprentice completed 15 months training (9 months for retrainees) for award of the 5-skill level? - Has the apprentice met mandatory requirements listed in specialty description, AFMAN 36-2108 (Airman Classification), and CFETP? - Has the apprentice been recommended by their supervisor?		
Craftsman - Has the journeyman achieved the rank of SSgt? - Has the journeyman completed mandatory CDCs? if available? - Has the journeyman completed all 5- and 7-level core tasks on at least one MDS aircraft identified in the CFETP? - Has the journeyman completed all other duty position tasks identified by the supervisor? - Has the journeyman attended 7-skill level Craftsman Course (if available)? First, they must complete: -- All 7-level training requirements listed in the CFETP. -- All applicable mandatory CDCs and /or exportable courses. -- A minimum of 12 months UGT (6 months for retrainees). - Has the journeyman completed a minimum of 18 months UGT (12 months for retrainees) for award of the 7-skill level?		

TO: Squadron/CC

FROM: Squadron Training Manager

SUBJECT: Upgrade Trainee

Trainee is prepared to be upgraded and has completed all mandatory training requirements.
 Supervisor recommends upgrade.

Training Manager

Supervisor

SECTION C - SKILL LEVEL TRAINING REQUIREMENTS

9. Purpose. Skill level training requirements in this career field are defined in terms of tasks and knowledge requirements. This section outlines the specialty qualification requirements for each skill level in general terms and establishes the mandatory requirements for entry, award, and retention of each skill level. The specific task and knowledge training requirements are identified in the STS in Part II, Sections A and B of this CFETP.

10. Specialty Qualification. The various skill levels in this career field are defined in terms of tasks and knowledge proficiency requirements for each skill level. They are stated in broad general terms and establish the standards of performance. The specific task and knowledge training requirements are identified in the STS in Part II, Section A of the CFETP. Unit work centers must develop a structured training program to ensure the following requirements are met.

10.1. Apprentice Level Training.

10.1.1. Specialty Qualification: To perform duties at the apprentice level, an individual must be able to understand basic system theory of operation and be able to perform certain on-equipment tasks under close supervision until task certified.

10.1.1.1. Knowledge: A 3-level must be able to use technical data, common hand tools, and special purpose test equipment. Apprentices must be qualified to remove and install system LRUs, perform operational checks, troubleshoot Electronic Warfare systems to the fault identification and/or isolation level, use support equipment, trace signal/data flow of system schematic diagrams, and document maintenance actions in an automated data system.

10.1.1.2. Education: For entry into this specialty, completion of high school with courses in basic electronics, mathematics, general science and physics is desirable.

10.1.1.3. Training: Training to the three-skill level will require completion of the initial skills courses which include Electronic Principles conducted at Lackland AFB and AFSC specific training conducted at Sheppard AFB TX.

10.1.1.4. Experience: There is no experience necessary for entry into AFSC 2A5X3C.

10.1.1.5. Other: The following are mandatory as indicated:

10.1.1.5.1. For entry into this specialty:

10.1.1.5.1.1. Normal color vision as defined in AFI 48-123, *Medical Examination and Standards*.

10.1.1.5.1.2. For award and retention of AFSCs 2A533C/53C/73C, eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Management Program*.

10.1.2. Training Sources. The initial skills course, J3ABR2A533-001, will provide the required knowledge and qualifications. Initial skills training encompasses basic electronic warfare theory. It also includes system operation, system component removal and installation, introduction to maintenance concepts and troubleshooting, maintenance documentation with CAMS, support equipment familiarization and use, and general flightline aircraft maintenance practices.

10.1.3. Implementation. Upon graduation from Basic Military Training, airmen will attend course L3AQR2A533C-600, Electronic Principles at Lackland AFB, TX., then proceed to Sheppard AFB, TX. to complete the J3ABR2A533C-001, Electronic Warfare Systems Apprentice Course. Completion of both courses will result in award of the 3-skill level.

10.2. Journeyman Level Training:

10.2.1. Specialty Qualification: In addition to the 3-level qualifications:

10.2.1.1. Knowledge: An individual must possess the knowledge and skills necessary to maintain electronic warfare systems, analyze and correct system malfunctions, repair and replace system wiring and other electrical components, perform operational checks and Built-In Tests (BITs), use and maintain

test and support equipment. They must also know how to handle, store, and dispose of hazardous waste and materials according to environmental standards.

10.2.1.2. Education: There is no formal education for upgrade to 2A553C.

10.2.1.3. Training: Requirements for the Journeyman level require completion of the 5-level CDC and completion of all applicable 5-level core tasks on at least one MDS aircraft specified in the STS.

10.2.1.4. Experience: Qualification in and possession of AFSC 2A533C. Also, experience performing or supervising functions such as installing, maintaining, or repairing electronic warfare systems components.

10.2.1.5. Other: The following are mandatory as indicated:

10.2.1.5.1. For entry into this specialty:

10.2.1.5.1.1. Normal color vision as defined in AFI 48-123, *Medical Examination and Standards*.

10.2.1.5.1.2. For award and retention of AFSCs 2A533C/53C/73C, eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Management Program*.

10.2.2. Training Sources and Resources. The 5-level CDC provides the career knowledge training required. Qualification training and OJT will provide training and qualification on the applicable core tasks identified in the STS. The CDC is written to build from the trainee's current knowledge base, and provides more in-depth knowledge to support OJT requirements.

10.2.3. Implementation. Training to the 5-level is performed by the units, utilizing the STS, exportable courses, and CDCs. Upgrade to the 5-level requires completion of the 2A553C, Bomber Electronic Warfare Systems Journeyman CDC, completion of all 5-level core tasks on one MDS aircraft, and MAJCOM/Unit requirements.

10.3. Craftsman Level Training:

10.3.1. Specialty Qualification. In addition to the 5-level qualifications:

10.3.1.1. Knowledge. An individual must possess advanced skills and knowledge of theory, concepts, principles and application of electronic warfare systems and equipment. The 7-level must be able to supervise, train, and utilize resources to ensure effective maintenance. The 7-levels must be qualified on advanced repair and inspection techniques; component and system fault isolation; repair requirements, flightline procedures and evaluations; supervision, and historical documentation analysis.

10.3.1.2. Education. There are no additional education requirements beyond those defined for the apprentice level.

10.3.1.3. Training. Completion of an applicable 2A553C CDC and the resident 7-level course, J3ACR2A573-001, at Sheppard AFB TX is mandatory for upgrade to AFSC 2A573C.

10.3.1.4. Experience. Completion of all applicable 5 and 7-level core tasks on at least one MDS aircraft as identified in the STS, and qualification in and possession of AFSC 2A533C. Also, experience performing or supervising functions such as installing, maintaining, or repairing electronic warfare systems.

10.3.1.5. Other. The following are mandatory as indicated:

10.3.1.5.1. For entry into this specialty:

10.3.1.5.1.1. Normal color vision as defined in AFI 48-123, *Medical Examination and Standards*.

10.3.1.5.1.2. For award and retention of AFSCs 2A533C/53C/73C, eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Management Program*.

10.3.2. Training Sources and Resources. Seven-level upgrade training will be conducted by certified trainers using applicable core tasks, unit/MAJCOM specific courses, applicable 7-level CDC, and the formal 7-level course, J3ACR2A573-001. The resident courses and/or 7-level CDCs are written to provide advanced theory and troubleshooting skills. Qualification training packages will also be developed and provided to the field units to help standardize OJT, enhance the training effort, and minimize the impact on productive man-hours.

10.3.3. Implementation. Upgrade to the 7-level will require completion of all applicable 5 and 7-level core tasks on one MDS aircraft, applicable 7-level CDCs, craftsman's maintenance course J3ACR2A573-001, 18 months OJT after selection to SSgt, and all mandatory exportable courses.

10.4. Superintendent Level Training (9-Level).

10.4.1. Specialty Qualification. In addition to 7-level qualifications:

10.4.1.1. Knowledge. An individual must possess advanced skills and knowledge of concepts and principles in the management of aircraft maintenance. The 9-level needs to be an effective leader; must be able to forecast, budget and manage funds and other resources; and must be knowledgeable of all environmental standards and ensure adherence to the proper handling and disposal of hazardous materials.

10.4.1.2. Education. There are no additional requirements beyond those defined for the apprentice level.

10.4.1.3. Training. For award of AFSC 2A590, completion of applicable PME courses and promotion to SMSgt is mandatory

10.4.1.4. Experience. Qualification in and possession of AFSC 2A571, 2A572, or 2A573X. Also experience managing or directing repair activities for electronic warfare systems, and associated maintenance functions.

10.4.1.5. Other. Normal color vision as defined in AFI 48-123 is mandatory.

10.4.2. Training Sources and Resources. The senior NCO Academy and unit OJT will be used for training.

10.4.3. Implementation. The 9-level will be awarded after completing MAJCOM requirements, unit OJT and promoted to SMSgt. Individuals must attend the Senior NCO Academy after they are selected for promotion to SMSgt. ANG and AFRC personnel can use correspondence course.

SECTION D - RESOURCE CONSTRAINTS

11. Purpose: This section of the CFETP identifies known resource constraints which preclude optimum/desired training from being developed or conducted. Included is a narrative explanation of each resource constraint, an impact statement describing the effect on training, the resources needed, and actions required to satisfy the training requirements.

12. Apprentice Level Training.

12.1 Constraints. Training requirements to support transition to the Integrated Maintenance Data System (IMDS) were defined. Since IMDS will ultimately replace CAMS and GO81, these training requirements describe our approach to 3/5/7-level training and CDC content training.

12.1.1. Impact. Training and resource requirements on IMDS must be planned to ensure no interruptions in career field training. Current projections are for IMDS to be fielded to Sheppard AFB sometime in FY02. All training at Sheppard AFB will convert to using IMDS when Sheppard AFB is converted. At that point, the 2A3X2 training will use IMDS to the levels defined in part II. Training on CAMS will then revert solely to CBT and OJT. No later than Oct 01, the 5 level CDCs will include IMDS (Note: This date is dependent upon IMDS manuals and training being provided to the CDC writer). The CDCs will include both CAMS and IMDS until Oct 03. No later than Oct 03, the CAMS material will be deleted provided IMDS has largely completed fielding. CAMS material needs to be removed from WAPS testing effective FY04 cycle. **Note:** *If the fielding schedule is delayed or advanced, dates will change as appropriate.*

12.1.2. Resources Required. IMDS instructions and training. IMDS equipment.

12.1.3. Action Required. IMDS training will be projected and provided through the IMDS Training IPT. The 365 TRS will submit its IMDS equipment requirements to HQ AETC/XPRO. HQ

AETC/XPRO will ensure that Sheppard AFB instructors and infrastructure are prepared to convert to IMDS training when Sheppard AFB is converted. AETC/XPRO will work these issues through the IMDS Training and Fielding IPTs. These actions must be accomplished to ensure career fields are smoothly transitioned to IMDS on schedule.

12.1.4. OPR/Target Completion Date. 365 TRS/TRR and HQ AF/ILMM. Completion date is estimated to be FY03.

13. Five Level Training. There are no constraints.

14. Seven Level Training. There are no constraints.

15. Supplemental Training. There are no constraints.

SECTION E. - TRANSITIONAL TRAINING GUIDE.

Initial Skills Training (3 skill level): The basic 2A5X3C initial skills course will be approximately 58 academic days, a decrease from the previous course due to the deletion of the Communication and Navigation systems from this AFSC. The Comm/Nav training and resources will move to the 2A5X3A AFSC. The revised C shred course will be on-line NLT May 00 so students can be graduated NLT Oct 00. The 5 level CDCs will be revised, and decrease from 3 CDCs to just one CDC. The new CDC will be available NLT Oct 00. The revised CDC will include information from the existing 2A55C1, and volume 3 of CDC 2A55C2.

Journeyman/Craftsman (5/7 Skill Level): There is no training required for this conversion. Individuals will not be exempt from SKT testing. Test material on the Comm/Nav systems will be deleted for the 2001 SKT test cycle.

PART II

SECTION A - SPECIALTY TRAINING STANDARD

1. Implementation. This STS will be used for technical training provided by Air Education and Training Command (AETC) for classes beginning May 00.

2. Purpose. As prescribed in AFI 36-2201, this STS:

2.1. Lists in column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for airmen to perform duties in the 3-, 5-, and 7-skill level. All tasks are taught in the wartime course. The 7-level in-residence craftsman course will not be taught in wartime.

2.2. Column 2 (Core Tasks) identifies, by asterisk (*), specialty-wide training requirements. Core tasks identified with an *R are optional for AFRC and ANG. As a minimum, certification on all core tasks applicable to one Mission Design Series (MDS) aircraft assigned must be completed for skill level upgrade. Exemptions:

2.2.1. Core tasks which are not applicable to base assigned aircraft or equipment are not required for upgrade (units are not required to send personnel TDY for core task training).

2.2.2. For units with more than one MDS aircraft, upgrade trainees need only complete core tasks on a single MDS. MFMs, unit commanders, and/or supervisors may require trainees to complete core task training on additional MDSs, if desired. If some of these core tasks involve training in another unit on base, trainees must still complete all core tasks relevant to at least one MDS. All units are bound by the requirements in this CFETP and will accommodate core task trainees from other units.

2.2.3. Units that use the GO81 maintenance data collection system do not need to complete Core Automated Maintenance System (CAMS) Computer Based Training (CBT) core tasks. However, these units must be capable of training CAMS related CBT core tasks for deployment preparation. This capability ensures GO81 users are capable of operating CAMS prior to deploying to CAMS using units. This requirement will remain in effect until GO81 and CAMS are converted to the Integrated Maintenance Data System (IMDS).

2.3. Provides certification for OJT. Column 3 is used to record completion of tasks and knowledge training requirements. Use automated training management systems to document technician qualifications, if available. Task certification must show a certification/completed date.

2.4. Shows formal training and correspondence course requirements. Column 4 shows the proficiency to be demonstrated on the job by the graduate as result of training on the task/knowledge and the career knowledge provided by the correspondence course. When two codes are used in columns 4 (e.g. 2b/b), the first code is the established requirement for resident training on the task/knowledge, and the second code indicates the level of training provided in the course due to equipment shortages or other resource constraints. See CADRE/AFSC/CDC listing maintained by the unit training manager for current CDC listing.

2.5. Qualitative Requirements: Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and career development courses.

2.6. Job Qualification Standard: Becomes a Job Qualification Standard (JQS) for on-the-job training (OJT) when placed in the AF Form 623, **On-the-Job Training Record**, and used according to AFI 36-2201. For OJT, the tasks in column 1 are trained and qualified to the go/no go level. "Go" means the individual can perform the task without assistance and meets local requirements for accuracy, timeliness, and correct procedures. When used as a JQS, the following requirements apply:

2.6.1. Documentation: Document and certify training IAW AFMAN 36-2247, Chapter 5. Automated records, utilizing Core Automated Management System (CAMS) or Integrated Maintenance Data

System (IMDS)/Global Combat Support System (GCSS), reflecting this STS may be used and are highly encouraged. The CFETP Section I and Section II, Part A must be filed in individual records along with attachment 1, attachment two, and attachment five. In addition, it is mandatory to use either attachment three or four in individual records. MAJCOMs may designate additional core tasks other than those already identified in the CFETP. Identify duty position requirements by circling (in pencil) the subparagraph number next to the task statement. As a minimum, complete the following columns: date training completed, trainee initials, trainer initials, and certifier initials (core tasks only). Trainers may sign off non-core and non-critical tasks by initialing the trainer's column; third party certification is not required for non-core and non-critical tasks. There are no approved AFJQS for this AFSC.

2.6.1.1. Converting from Old Document to CFETP: Transcribe records IAW AFMAN

36-2247. All AFJQSs and previous CFETPs are replaced by this CFETP; therefore, conversion of all training records to this CFETP STS is mandatory. Automated records reflecting this STS may be used and are highly encouraged. Use this CFETP STS (or automated STS) to identify and certify all past and current qualifications.

2.6.1.1.1. For those core and critical tasks previously certified and required in the current duty position, evaluate current qualifications and when verified, recertify using current date as completion date, and enter trainee's and certifier's initials. Remember, during the transcription process no training is taking place. Therefore, the trainer's initials are not required.

2.6.1.1.2. For non-core and non-critical tasks previously certified and required in the current duty position, evaluate current qualifications and when verified, recertify using current date as completion date, and enter trainee's and trainer's initials.

2.6.1.1.3. When transcribing previous certification for tasks not required in the current duty position, carry forward *only* the previous completion date of certification (not the initials of another person). If and when transcribed tasks become duty position requirements, recertify using standard certification procedures.

2.6.1.1.4. The person whose initials appear in the trainer or certifier block during the transcription process must meet the requirements of their respective roles.

2.6.1.1.5. Upon completion of the transcription process, give the old CFETP to the member.

2.6.1.2. Documenting Career Knowledge: When a CDC is not available: the supervisor identifies CFETP Part II training references that the trainee requires for career knowledge and ensures, as a minimum, that trainees cover the mandatory items in AFMAN 36-2108. CDC information in **all** attachments of the CFETP are mandatory for five and seven-level upgrade. For two-time CDC course exam failures: supervisors identify all Part II items corresponding to the areas covered by the CDC. The trainee completes a study of references, undergoes evaluation by the task certifier, and receives certification on the CFETP Part II. *Supervisors must document successful completion of career knowledge prior to submitting a CDC waiver.*

2.6.1.3. Decertification and Recertification: When an airman is found to be unqualified on a task previously certified for his or her position, the supervisor lines through the previous certification or deletes previous certification when using automated system. Appropriate remarks are entered on the AF Form 623a, **On-The-Job Training Record Continuation Sheet**, as to the reason for decertification. The individual is recertified (if required) either by erasing the old entries and writing in the new or by using correction fluid/tape (if the entries are in ink) over the previously certified entry.

2.6.2. AF Form 797. When additional items not listed in the CFETP Part II are necessary in the current duty assignment, enter them on the AF Form 797. Fill out the form IAW AFMAN 36-2247.

2.6.3. Disposition of Training Records. Upon separation, retirement, commissioning, or promotion to Master Sergeant (unless otherwise directed by the AFCFM, MAJCOM, unit commander, or supervisor), give the individual their training records. Also, give individuals outdated training records after

transcribing records. Do not remove any training records that show past qualifications unless transcribed to a new CFETP. For example, an individual working in a tool crib or staff position must maintain documented career field qualifications in case they return to direct maintenance duty. Supervisors must exercise good judgment when removing training records not needed in current duty positions.

2.7. Is a guide for development of promotion tests used in the Weighted Airman Promotion System (WAPS). Specialty Knowledge Tests (SKTs) are developed at the USAF Occupational Measurement Squadron by senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the WAPS catalog. Individual responsibilities are in chapter 14 of

AFI 36-2606, *US Air Force Reenlistment, Retention, and NCO Status Programs*. WAPS is not applicable to the Air National Guard or Air Force Reserve.

3. Recommendations. Report unsatisfactory performance of individual course graduates to the AETC training manager at 365 TRS/TRR, 609 9th Avenue, Stop 242, Sheppard AFB TX, 76311-2335, DSN 736-7899. Reference specific STS paragraphs. For a quick response to problems, call our customer service information line, DSN 736-2574.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

JOHN W. HANDY, Lieutenant General, USAF
DCS/Installations and Logistics

5 Attachments

1. Proficiency Code Key (Mandatory to file with CFETP Section I and Section II, Part A)
2. Training Requirements, Common Task (Mandatory for all 2A5X3C personnel)
3. Training Requirements, B-1 (Mandatory for personnel assigned to a B-1 unit)
4. Training Requirements, B-2 (Mandatory for personnel assigned to a B-2 unit)
5. Training Requirements, Electronic Fundamentals (Mandatory for all 2A5X3C personnel)

Note: Either attachment 3 or 4 must be filed.

PROFICIENCY CODE KEY

STS 2A5X3C

Name Of Trainee		
Printed Name (<i>Last, First, Middle Initial</i>)	Initials (Written)	SSAN
<i>Printed Name Of Training/Certifying Official And Written Initials</i>		
<i>N/I</i>	<i>N/I</i>	
<i>N/I</i>	<i>N/I</i>	
<i>N/I</i>	<i>N/I</i>	
<i>N/I</i>	<i>N/I</i>	
<i>N/I</i>	<i>N/I</i>	
<i>N/I</i>	<i>N/I</i>	
<i>N/I</i>	<i>N/I</i>	
<i>N/I</i>	<i>N/I</i>	

QUALITATIVE REQUIREMENTS

Proficiency Code Key		
	Scale Value	Definition: The individual
Task Performance Levels	1	IS EXTREMELY LIMITED (Can do simple parts of the task. Needs to be told or shown how to do most of the task.)
	2	IS PARTIALLY PROFICIENT (Can do most parts of the task. Needs only help on hardest parts.)
	3	IS COMPETENT (Can do all parts of the task. Needs only a spot check of completed work.)
	4	IS HIGHLY PROFICIENT (Can do the complete task quickly and accurately. Can tell or show others how to do the task.)
*Task Knowledge Levels	a	KNOWS NOMENCLATURE (Can name parts, tools, and simple facts about the task.)
	b	KNOWS PROCEDURES (Can determine step by step procedures for doing the task.)
	c	KNOWS OPERATING PRINCIPLES (Can identify why and when the task must be done and why each step is needed.)
	d	KNOWS ADVANCED THEORY (Can predict, isolate, and resolve problems about the task.)
**Subject Knowledge Levels	A	KNOWS FACTS (Can identify basic facts and terms about the subject.)
	B	KNOWS PRINCIPLES (Can identify relationship of basic facts and state general principles about the subject.)
	C	KNOWS ANALYSIS (Can analyze facts and principles and draw conclusions about the subject.)
	D	KNOWS EVALUATION (Can evaluate conditions and make proper decisions about the subject.)

Explanations

* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)

** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks.

- This mark is used alone instead of a scale value to show that no proficiency training is provided in the courses or CDCs.

/ This mark is used in course columns to show that training is required but not given/reduced due to limitations in resources (3c/b, 2b/b, 3c/-, etc.).

Note: All course requirements are trained in the 3-level resident wartime course. The 7-level in-residence course is not taught in wartime.

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC

ATTACHMENT 2

NOTE 1: All course requirements are trained in the 3 level wartime course. The 7-level in-residence course will not be taught in wartime.

NOTE 2: Users are responsible for annotating training references to identify current references pending STS revision.

NOTE 3: Items marked in columns 2a or 2b marked with a (*R) are optional core tasks for ANG and AFRC.

NOTE 4: Address comments and recommended changes through the MAJCOM Functional Managers to the AETC Training Manager, DSN 736-7899.

A2.1. CAREER LADDER PROGRESSION											
A2.1.1. Progression in career ladder 2A5X3C TR: AFI 36-2108, AFVA 39-1								-	-	-	-
A2.1.2. Duties of 3-, 5-, and 7-level personnel TR: AFI 36-2108								-	-	-	-
A2.2. SECURITY											
A2.2.1. Information Security TR: AFI 31-401, 31-501, AFRD 31-4, 31-5 Applicable directives											
A2.2.1.1. Classification of information								A	-	-	B
A2.2.1.2. Prevention of security violations								-	-	-	-
A2.2.1.3. Access to classified information								-	-	-	B
A2.2.2. Physical Security TR: DOD 5200.1R											
A2.2.2.1. Control of restricted areas								-	-	-	-
A2.2.2.2. Security alert reporting								-	-	-	-
A2.2.2.3. Make entries on cabinet, safes, and room security forms								a	-	-	-
A2.2.2.4. Proper handling of classified materials								a	-	-	B
A2.2.3. Communications Security (COMSEC) TR: AFI 33-211											
A2.2.3.1. COMSEC Education Program								-	-	-	B
A2.2.3.2. Specific 2A5X3C vulnerabilities								A	-	-	-
A2.2.4. Operations Security (OPSEC) TR: AFI 10-1101, AFRD 10-11; Applicable directives											
A2.2.4.1. Goals of OPSEC program								-	-	-	B
A2.2.4.2. Relationship to other programs								-	-	-	-
A2.2.4.3. Specific 2A5X3C vulnerabilities								A	-	-	-
A2.2.4.4. Function of CILs (critical information lists)								-	-	-	-
A2.2.5. Computer security (COMPUSEC)								-	-	-	B

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.3. AF OCCUPATIONAL SAFETY AND HEALTH (AFOSH) PROGRAM TR: AFI 91-400 series; Tos 312-10-4, 33-1-32											
A2.3.1. AFOSH standards for AFSC 2A5X3C								-	-	-	-
A2.3.2. Maintain safe work area								-	-	-	-
A2.3.3. Hazards/Safety Practices of AFSC 2A5X3C											
A2.3.3.1. RF energy								A	-	-	-
A2.3.3.2. Noise								A	-	-	-
A2.3.3.3. Compressed gases								A	-	-	-
A2.3.3.4. Electrical power								A	-	-	-
A2.3.3.5. Hydraulic power								A	-	-	-
A2.3.3.6. Hazardous liquids								A	-	-	-
A2.3.3.7. Radioactive parts and materials								-	-	-	-
A2.3.3.8. Aircraft								-	-	-	-
A2.3.3.9. Aerospace ground equipment (AGE)								-	-	-	-
A2.3.3.10. Electrical equipment								-	-	-	-
A2.3.3.11. STV Beryllium mirrors								-	-	-	-
A2.3.3.12. Practice FOD prevention								-	-	-	-
A2.3.3.13. AF Nuclear Surety Program								-	-	-	-
A2.4. HAZARDOUS MATERIALS AND WASTE HANDLING ACCORDING TO ENVIRONMENTAL STANDARDS TR: AFI 23-504, EPA State Regulations											
A2.4.1. Types of hazardous material /fluids								B	-	-	-
A2.4.2. Handling procedures								B	-	-	-
A2.4.3. Storage and labeling								B	-	-	-
A2.4.4. Proper disposal								B	-	-	-
A2.4.5. Material Safety Data Sheet								B	-	-	-
A2.5. MAINTENANCE MANAGEMENT TR: AFI 21-101; and ACC 21-101											
A2.5.1. Purpose and function of the Maintenance Organization								-	B	-	-
A2.5.2. Maintenance Data Collection								B	B	-	-
A2.5.3. Core Automated Maintenance System								B	B	-	-
A2.5.4. Maintenance accountability								-	-	-	B
A2.5.5. Basic functions and responsibilities of the Maintenance Complex								-	-	-	B

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.5.6. Operational Risk Management								-	-	-	B
A2.5.7. Logistics/Resource Maintenance Management											
A2.5.7.1. Logistics Management								-	-	-	B
A2.5.7.2. Resource Management								-	-	-	B
A2.5.7.3. Operations/Logistics Group Commander Responsibilities								B	-	-	B
A2.5.7.4. Technical Order Management								-	-	-	B
A2.5.7.5. Deficiency Reporting								-	-	-	B
A2.5.7.6. Product Improvement Working Group, Test Planning Working Group, System Training Plan, and Product Improvement Review								-	-	-	A
A2.5.7.7. Financial Plan								-	-	-	A
A2.5.7.8. Aircraft Maintenance Management Information Systems								-	-	-	B
A2.5.7.9. Aircraft Monitoring								-	-	-	B
A2.5.7.10. Maintenance QPM Relationships								-	-	-	B
A2.5.7.11. FOD Program Manager								-	-	-	A
A2.5.7.12. Mobility								-	-	-	A
A2.5.7.13. Expediter, Production Supervisor, and Flight Chief Duties and Responsibilities								-	-	-	B
A2.5.7.14. Maintenance Incident Investigation and Prevention								-	-	-	B
A2.5.8. Repair Cycle								A	-	C	B
A2.6. MAINTENANCE AND INSPECTION SYSTEMS, FORMS TR: AFI 21-101; Applicable Command Directives											
A2.6.1. Maintenance systems								-	-	-	-
A2.6.2. Aircraft inspection systems								-	A	-	B
A2.6.3. Use Maintenance Data Collection Forms								2b	-	-	-
A2.6.4. Use Core Automated Maintenance Systems (CAMS)											
A2.6.4.1 Create discrepancy	*							2b	-	-	-
A2.6.4.2. Schedule discrepancy	*							2b	-	-	-
A2.6.4.3. Defer discrepancy	*							2b	-	-	-
A2.6.4.4. Transfer discrepancy	*							2b	-	-	-

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.6.4.5. Sign off discrepancy											
A2.6.4.5.1. Cannibalization		*						2b	-	-	-
A2.6.4.5.2. Action taken code "P"	*							2b	-	-	-
A2.6.4.5.3. Action taken code "Q"	*							2b	-	-	-
A2.6.4.5.4. Action taken code "R"	*							2b	-	-	-
A2.6.4.5.5. Special Inspections								2b	-	-	-
A2.6.4.5.6. Maintenance transactions								-	-	-	-
A2.6.4.5.7. Supply transactions								-	-	-	A
A2.6.4.5.8. Maintenance/Supervision Transactions								-	-	-	A
A2.6.5. INTEGRATED MAINTENANCE DATA SYSTEM (IMDS) TR: AFI 21-101											
A2.6.5.1. IMDS training subsystem											
A2.6.5.1.1. Purpose of the IMDS training system								A/-	B/-	-	B/-
A2.6.5.1.2. Document Master Task List (MTL)								-	-	-	B/-
A2.6.5.1.3. Perform Ad Hoc inquiry								-	-	-	B/-
A2.6.5.1.4. Identify duty position requirements								-	-	-	B/-
A2.6.5.1.5. Document task certification								a/-	B/-	-	B/-
A2.6.5.2. IMDS Maintenance Data Collection (MDC)											
A2.6.5.2.1. Purpose of MDC process								A/-	B/-	-	-
A2.6.5.2.2. Use IMDS to:											
A2.6.5.2.2.1. Create jobs	*							3c/-	-	-	-
A2.6.5.2.2.2. Transfer jobs	*							2b/-	-	-	-
A2.6.5.2.2.3. Clear jobs	*							3c/-	-	-	-
A2.6.5.2.2.4. Document component maintenance actions	*							3c/-	-	-	-
A2.6.5.2.2.5. Document Cannibalization	*							3c/-	-	-	-
A2.6.5.2.2.6. Use Portable Maintenance Aid (PMA)	*							3c/-	-	-	-
A2.6.5.2.2.7. Order Parts	*							2b/-	-	-	-
A2.6.5.2.2.8. Review Maintenance Status	*							3c/-	-	-	-
A2.6.5.2.2.9. Review Equipment Status	*							3c/-	-	-	-
A2.6.6. Other Automated Maintenance System (RAMPOD and GO 81)								-	-	-	A
A2.6.7. Access and print all open events assigned to workcenter								2b	-	-	-

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.6.8. Job Data Documentation (JDD)								-	-	-	B
A2.6.9. Material Deficiency Reporting System								-	B	-	B
A2.6.10. Deficiency Reporting System											
A2.6.10.1. Concept of								-	B	-	-
A2.6.10.2. Use of								-	-	-	-
A2.6.10.3. Initiate software improvement/deficiency report								-	-	-	B
A2.6.11. Use aircraft /equipment maintenance forms											
A2.6.11.1. 781A								2b	-	-	B
A2.6.11.2. 781B								-	-	-	B
A2.6.11.3. 781C								-	-	-	B
A2.6.11.4. 781K								2b	-	-	B
A2.6.11.5. 781L								-	-	-	B
A2.6.11.6. Form 244/245								-	-	-	B
A2.6.11.7 Use AF Form 1492								-	-	-	-
A2.6.11.8 Use AFTO 349								-	-	-	-
A2.6.12. Historical Records								-	-	-	B
A2.6.13. Status Reports								-	-	-	B
A2.6.14. Configuration Management								-	-	-	B
A2.7. SUPERVISION											
A2.7.1. Orient new personnel TR: AFI 36-2108, 36-2201								-	-	-	-
A2.7.2. Assign personnel to work assignments TR: AFI 21-101; Applicable Command Directives								-	-	-	-
A2.7.3. Plan work assignments and priorities TR: ACCI 21-166								-	-	-	-
A2.7.4. Schedule work assignments and priorities TR: AFI 21-101; Applicable Command Directives								-	-	-	-
A2.7.5. Coordinate work assignments TR: AFI 21-101; Applicable Command Directives								-	-	-	-

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.7.6. Establish TR: AFI 21-101; Applicable Command Directives											
A2.7.6.1. Work methods								-	-	-	-
A2.7.6.2. Controls								-	-	-	-
A2.7.6.3. Performance Standards								-	-	-	-
A2.7.7. Evaluate work performance of subordinate personnel TR: AFI 21-101; Applicable Command Directives								-	-	-	-
A2.7.8. Help resolve technical problems for subordinate personnel TR: AFI 21-101; Applicable Command Directives								-	-	-	-
A2.7.9. Initiate actions to correct substandard performance TR: AFIs 36-2503, -2907, -3202, -3208								-	-	-	-
A2.7.10. Counsel personnel and help resolve individual problems TR: AFP 36-2618								-	-	-	-
A2.7.11. Supervise: TR: AFI 21-101, ACCI 21-166											
A2.7.11.1. Maintenance actions								-	-	-	B
A2.7.11.2. Inspection actions								-	-	-	B
A2.7.12. Utilize: TR: ACCI 21-101, AFI 21-103											
A2.7.12.1. Maintenance reports								-	-	B	-
A2.7.12.2. Inspection reports								-	-	B	-
A2.7.13. Prepare: TR: AFI 21-101; Applicable Command Directives											
A2.7.13.1. Maintenance inspection reports and charts								-	-	-	-
A2.7.13.2. Organization and functional charts								-	-	-	-
A2.7.14. Justify: TR: AFI 21-101; Applicable Command Directives											
A2.7.14.1. Personnel manning requirements								-	-	-	-
A2.7.14.2. Equipment Authorizations								-	-	-	-

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.7.15. Recommend policy changes on use of: TR: AFI 21-101; Applicable Command Directives											
A2.7.15.1. Personnel								-	-	-	-
A2.7.15.2. Equipment								-	-	-	-
A2.7.16. Statement of charges TR: AFM 23-110 V-2								-	-	-	-
A2.7.17. Perform reports of survey TR: AFM 23-110 V-2								-	-	-	-
A2.7.18. Aircraft Scheduling TR: ACCI 21-101, AFI 21-103											
A2.7.18.1. Utilize flow charts								-	-	-	B
A2.7.18.2. Status reporting								-	-	-	B
A2.7.18.3. Flying/maintenance planning								-	-	-	B
A2.7.19. Maintenance mobility planning								-	-	-	-
A2.7.20. Maintenance accountability								-	-	C	B
A2.8. TRAINING TR: AFI 36-2201											
A2.8.1. Evaluate personnel for need of training								-	-	-	-
A2.8.2. Plan and supervise OJT/Enlisted Training:											
A2.8.2.1. Prepare JQSs (AF Form 797)								-	-	-	-
A2.8.2.2. Conduct Training								-	-	-	-
A2.8.2.3. Counsel trainees on their progress								-	-	-	-
A2.8.2.4. Provide motivation for trainers and trainees								-	-	-	-
A2.8.2.5. Monitor effectiveness of training											
A2.8.2.5.1. Career knowledge upgrade								-	-	-	-
A2.8.2.5.2. Job proficiency upgrade								-	-	-	-
A2.8.2.5.3. Qualification Training								-	-	-	-
A2.8.2.6. Maintain training records								-	-	-	-
A2.8.2.7. Develop training programs								-	-	-	-
A2.8.2.8. Evaluate effectiveness of training programs								-	-	-	-
A2.8.2.9. Recommend personnel for training								-	-	-	-
A2.8.3. OJT trainer requirements											
A2.8.3.1. Prepare teaching outlines of task breakdowns								-	-	-	-

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.8.3.2. Provide trainees theory and train on actual equipment								-	-	-	-
A2.8.3.3. Provide feedback on training provided								-	-	-	-
A2.8.4. OJT task certifier requirements											
A2.8.4.1. Develop methods of evaluation to determine trainee knowledge/qualification and training effectiveness								-	-	-	-
A2.8.4.2. Use appropriate method of evaluation and effectively determine trainee's ability								-	-	-	-
A2.8.4.3. Provide supervisor and trainee feedback on results of training provided, and trainee's strengths/weakness								-	-	-	-
A2.8.5. Career Field Education and Training Plan (CFETP)								-	-	-	-
A2.8.6. Specialty Training Status (STS)								-	-	-	-
A2.8.7. Occupational Survey Report (OSR)								-	-	-	-
A2.8.8. Utilization and Training Workshop (U&TW)								-	-	-	-
A2.9. TECHNICAL PUBLICATIONS TR: TOs 0-1-01, 00-5-1, 00-5-2, 00-5-17, 00-5-18, 80-00-1											
A2.9.1. Scope and application of the technical order system								A	B	-	-
A2.9.2. Use technical order indexes								-	-	-	-
A2.9.3. Use technical orders								2b	-	-	-
A2.9.4. Scope and application of technical order improvement/deficiency report								A	-	-	-
A2.9.5. Initiate technical order improvement/deficiency report								a	B	-	-
A2.9.6. Scope and application of the Computer Program Identification Number (CPIN) system								A	-	-	-
A2.9.7. Use CPIN compendium								-	-	-	-
A2.9.8. Time Compliance Technical Orders								-	-	-	B
A2.9.9. Maintain technical order files								-	-	-	-
A2.10. SUPPLY DISCIPLINE TR: AFMAN 23-110 V2, ACCI 21-101											
A2.10.1. Property accountability and responsibility								A	B	-	-
A2.10.2. Principles of equipment authorization and management								-	B	-	-
A2.10.3. Special requisitions								-	-	-	-

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.10.4. Back order verification								-	-	-	-
A2.10.5. Use equipment condition tags								2b	-	-	-
A2.10.6. Use microfiche/computer based programs								-	-	-	-
A2.10.7. Use issue/turn-in requests								2b	-	-	-
A2.10.8. Use supply management reports								-	-	-	-
A2.10.9. Maintenance Supply Concept								-	-	-	B
A2.10.10. Supply Documents Management								-	-	-	B
A2.10.11. Equipment Account Management								-	-	-	B
A2.10.12. Status of Reports and Training (SORTS)								-	-	-	A
A2.10.13. Priority System								-	-	-	B
A2.10.14. Repair Cycle Assets								-	-	-	B
A2.10.15. Standard Base Supply System (SBSS)								-	-	-	B
A2.10.16. Classified Asset Handling								-	-	-	A
A2.10.17. Land Mobile Radios, Pagers, and Cell Phones								-	-	-	A
A2.10.18. Property Responsibility								-	-	-	B
A2.10.19. Supply responsibility								-	-	-	B
A2.10.20. Lean Logistics								-	-	-	A
A2.10.21. Depot Level Repairables								-	-	-	B
A2.10.22. Use supply products											
A2.10.22.1. DO4								-	-	-	B
A2.10.22.2. D18								-	-	-	B
A2.10.22.3. M30								-	-	-	B
A2.10.22.4. D23								-	-	-	-
A2.11. FUNDAMENTALS OF AVIONIC SYSTEMS MAINTENANCE-ON EQUIPMENT TR: Applicable aircraft -1 and -2 series TOs; 00-25-234, 1-1A-14, 33-1-32											
A2.11.1. Perform nuclear hardness maintenance and Inspections TR: Applicable system JG-00-1, 1-1A-14								2b	-	-	-
A2.11.2. Use aircraft hardware and non-powered AGE TR: AFI 91-408, Applicable aircraft TOs								-	-	-	-
A2.11.3. Use common tools TR: AFI 91-408, TOs 00-25-234, 32-1-1, 32-1-2, 32-1-101, 32-1-201								3b	-	-	-

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.11.4. Use torque indicating devices								3c	-	-	-
A2.11.5. Use special purpose tools								-	-	-	-
A2.11.6. Protect electrostatic devices								b	B	-	-
A2.11.7. Identify corrosion								a	-	-	-
A2.11.8. Use safetying devices								-	-	-	-
A2.11.9. Operate/maintain peculiar (special purpose) test equipment to perform maintenance functions								-	-	-	-
A2.12. GENERAL ORGANIZATIONAL MAINTENANCE TR: Applicable aircraft -1 and -2 series TOs											
A2.12.1. Ensure aircraft safe for maintenance								b	-	-	-
A2.12.2. Aircraft familiarization TR: TOs 1B-1B-2-00GV-00-1 (Chapter 2), 1B-2A-00GV-00-1, B-2 CAST BOOK											
A2.12.2.1. Major structural areas								A	B	-	-
A2.12.2.2. Major systems								A	B	-	-
A2.12.2.3. Danger areas								A	B	-	-
A2.12.2.4. Apply external air conditioning								-	-	-	-
A2.12.2.5. Apply external power								-	-	-	-
A2.12.2.6. Central Aircraft Support System (CASS)								-	-	-	-
A2.12.2.7. Perform selected classified data erase								-	-	-	-
A2.12.2.8. Apply hydraulic power								-	-	-	-
A2.12.3. Inspect aircraft systems for safe and secure installation								-	-	-	-
A2.12.4. Perform proximity switch control covering/uncovering								-	-	-	-
A2.12.5. Practice safe entry procedures on aircraft with open fuel cells								-	-	-	-
A2.12.6. Remove and install Radar Absorption Material (RAM)								-	-	-	-
A2.12.7. Operate Motorized Maintenance Stand								-	-	-	-
A2.12.8. Operate crane								-	-	-	-
A2.12.9. Launch/Recover aircraft								-	-	-	-
A2.12.10. Tow aircraft											
A2.12.10.1. Wing/Tail walker								-	-	-	-
A2.12.10.2. Brake operator								-	-	-	-
A2.12.10.3. Tow supervisor								-	-	-	-

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A2.12.10.4. Tow vehicle operator								-	-	-	-
A2.12.11. Perform Aircraft Phase Inspection								-	-	-	-
A2.12.12. Maintain tool crib								-	-	-	-
A2.12.13. Debrief								-	-	-	-
A2.12.14. Dispatch aircraft maintenance crews								-	-	-	-
A2.12.15. Ensure aircraft is safe for simulated airborne conditions								-	-	-	-
A2.13. MULTIPLEX BUS											
A2.13.1. Theory of Operation								B	B	-	-
A2.14. USE TEST EQUIPMENT TR: Applicable TOs											
A2.14.1. Serial Bus Analyzer								2b	-	-	-
A2.14.2. APN-427 Radar Simulator								-	-	-	-
A2.15. AIRCRAFT WIRING											
A2.15.1. Kapton wire								B	-	-	-
A2.15.2. Multiconductor								B	-	-	-
A2.15.3. Coaxial/Triaxial								B	-	-	-
A2.15.4. Nuclear hardened cable								B	-	-	-
A2.15.5. Twisted Pair								B	-	-	-
A2.15.6. Single Conductor								B	-	-	-
A2.15.7. Rigid Coaxial								B	-	-	-
A2.16. PERFORM WIRE MAINTENANCE											
A2.16.1. Stripping								2b	-	-	-
A2.16.2. Splicing								2b	-	-	-
A2.16.3. Bundling								2b	-	-	-
A2.16.4. Strain Relief								2b	-	-	-
A2.16.5. Continuity Checks								2b	-	-	-
A2.16.6. Wire Repair								-	B	-	-

COMMON TASK TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC

B-1 TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
ATTACHMENT 3											
NOTE 1: In addition to Attachment 2, the tasks and knowledge in this attachment will be performed by personnel in the J3ABR2A533C-001 course.											
NOTE 2: All course requirements are trained in the 3-level wartime course. The 7-level in-residence course is not taught in wartime.											
NOTE 3: Users are responsible for annotating training references to identify current references pending STS revision.											
NOTE 4: Items marked in columns 2A or 2B marked with a (*R) are optional core tasks for ANG and AFRC.											
NOTE 5: Address comments and recommended changes through the MAJCOM Functional Managers to the AETC Training Manager, DSN 736-7899.											
A3.1. Aircraft familiarization TR: TOs 1B-1B-2-00GV-00-1 (Chapter 2)											
A3.1.1. Operate A/C auxiliary power units (APUs)								-	-	-	-
A3.1.2. Apply external liquid coolant								-	-	-	-
A3.2. ON-AIRCRAFT TEST SYSTEMS											
A3.2.1. CENTRAL INTEGRATED TEST SYSTEM (CITS)											
A3.2.1.1. Purpose TR: TO 1B-1B-2-46GS-00-1								A	B	C	-
A3.2.1.2. Perform Ground Readiness Test (GRT) TR: 1B-1B2-40JG-46-1								-	-	-	-
A3.2.1.3. Interface with Defensive Avionics Systems (DAS) TR: TOs 1B-1B-2- 46GS-00-1, -93GS-00-1, -2								B	B	C	-
A3.2.1.4. Use Parameter Monitor Codes for systems monitoring/fault isolation TR: System GS-00-1, GS-00-2	*							2b	-	-	-
A3.2.1.5. Use CITS data snapshots TR: 1B-1B-2-40GS-00-1								2b	-	C	-
A3.2.1.6. Use CITS Deployable Diagnostic System		*						-	-	-	-
A3.2.1.7. Use aircraft STIM codes (PC Ops)		*						-	-	-	-
A3.3. ELECTRICAL MULTIPLEXING SYSTEM (EMUX)											
A3.3.1. Purpose TR: TO 1B-1B-2-92GS-00-1								A	B	C	-
A3.3.2. Interface with DAS TR: TO 1B-1B-2-92GS-00-1, -2								B	B	C	-

B-1 TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A3.4. AVIONICS CONTROL UNIT COMPLEX (ACUC)											
A3.4.1. Purpose TR: TO 1B-1B-2-34GS-00-1								A	B	-	-
A3.4.2. Interface with DAS Systems TR: TO 1B-1B-2-34GS-00-1, -2, -3								B	B	-	-
A3.4.3. Load and Log off ACUC TR: TO 1B-1B-2-34JG-60-2								2b	-	-	-
A3.4.4. Perform data erase TR: TO 1B-1B-2-34JG-60-2								2b	-	-	-
A3.4.5. Use FIA Page TR: 1B-1B-93GS-00-2								2b	-	-	-
A3.5. DEFENSIVE SYSTEM ORGANIZATIONAL LEVEL MAINTENANCE											
A3.5.1. Electronic warfare principles TR: AFP 51-45								B	B	-	-
A3.5.2. Functional operation of AN/ALQ-161A TR: TOs 1B-1B-2-93GS-00-1, -2, -3								B	B	-	-
A3.5.3. End-to-end check of AN/ALQ-161 TR: TO 1B-1B-2-93-8-1											
A3.5.3.1. Enhanced Automated Special Test Equipment and Hooded Antenna Test System TR: TOs 33D7-13-205-1, 33D7-35-64-1											
A3.5.3.2. Theory of Operation								A	-	-	-
A3.5.3.3. Perform functional checkouts TR: TO 1B-1B-2-93-8-1											
A3.5.3.3.1. Parameter Encoder								-	-	-	-
A3.5.3.3.2. LEES Sensitivity								-	-	-	-
A3.5.3.3.3. Wide Open Sensitivity								-	-	-	-
A3.5.3.3.4. Reject YIG Filter								-	-	-	-
A3.5.3.3.5. Nose Detect								-	-	-	-
A3.5.3.3.6. PD/CW Spiral Search								-	-	-	-
A3.5.3.3.7. Antenna Direction of Arrival								-	-	-	-
A3.5.3.3.8. RF Signal Management								-	-	-	-
A3.5.3.3.9. NEAJAM								-	-	-	-
A3.5.3.3.10. Transmitter Maximum Power								-	-	-	-
A3.5.3.3.11. Beamsteering								-	-	-	-
A3.5.3.3.12. Repeater								-	-	-	-

B-1 TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A3.5.3.3.13. 1122 Function								-	-	-	-
A3.5.3.3.14. Tail Warning Function								-	-	-	-
A3.5.4. Defensive Management Subsystem											
A3.5.4.1. Theory of Operation TR: TOs 1B-1B-2-93GS-00-1, -2, -3								B	B	-	-
A3.5.4.2. Perform Ground Readiness Test (GRT) TR: TO 1B-1B-2-40JG-93-1											
A3.5.4.2.1. Defensive System Operator (DSO) track handle								2b	-	-	-
A3.5.4.2.2. Radio Frequency Surveillance/Electronic Countermeasures (RFS/ECM) panel	*							2b	-	-	-
A3.5.4.2.3. Defensive System Operator (DSO) Power Panel								2b	-	-	-
A3.5.4.2.4. Defensive System Operator (DSO) Display Electronics Unit/Multifunction Display (DEU/MFD)								2b	-	-	-
A3.5.4.2.5. Graphics Generator/Electronic Display Unit (GG/EDU) # 1								2b	-	-	-
A3.5.4.2.6. Graphics Generator/Electronic Display Unit (GG/EDU) # 2								2b	-	-	-
A3.5.4.2.7. Defensive System Operator Integrated Keyboard (DSO IKB)								2b	-	-	-
A3.5.4.2.8. Control & Display (C&D) Power Supply								2b	-	-	-
A3.5.4.2.9. Left/Right/Aft Sector Power Supply Initialization								-	-	-	-
A3.5.4.3. Isolate Malfunctions TR: TOs 1B-1B-2-40JG-93-1; -93GS-00-1, -2; -93WD-00-1; -93GS-00-3		*						b	-	-	-
A3.5.4.4. Remove and Install LRUs TR: TOs 1B-1B-2-93JG-70-1, -2											
A3.5.4.4.1. Control and Display Avionics Control Computer (CDACC)								-	-	-	-
A3.5.4.4.2. DSO tracking handle								-	-	-	-
A3.5.4.4.3. RFS/SCM control panel								-	-	-	-
A3.5.4.4.4. DSO power panel								-	-	-	-
A3.5.4.4.5. Multifunction display indicator (MDI)	*							-	-	-	-
A3.5.4.4.6. Electronic display unit (EDU)								-	-	-	-

B-1 TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A3.5.4.4.7. Preprocessor Avionics Control Computer (PACC)								-	-	-	-
A3.5.4.4.8. Receiver threshold control (RTC)								-	-	-	-
A3.5.4.4.9. PACC transformer								-	-	-	-
A3.5.4.4.10. Advanced Tracking Unit (ATU)								-	-	-	-
A3.5.4.4.11. Control Interface Unit (CIU)								-	-	-	-
A3.5.4.4.12. Jammer Logic A (JLA)								-	-	-	-
A3.5.4.4.13. Jammer Logic B (JLB)								-	-	-	-
A3.5.4.4.14. Central System Power Supply								-	-	-	-
A3.5.4.4.15. Sector Power Supply								-	-	-	-
A3.5.4.4.16. Wheel Well Power Supply								-	-	-	-
A3.5.4.4.17. Graphics Generator								-	-	-	-
A3.5.4.4.18. Integrated Keyboard (IKB)								-	-	-	-
A3.5.4.4.19. Controls and Displays Power Supply								-	-	-	-
A3.5.5. Detection Subsystem											
A3.5.5.1. Theory of Operation TR: TOs 1B-1B-2-93GS-00-1, -2, -3								B	B	-	-
A3.5.5.2. Perform Ground Readiness Test (GRT) TR: TO 1B-1B-2-40JG-93-1								-	-	-	-
A3.5.5.3. Isolate Malfunctions TR: TOs 1B-1B-2-93-8-1; 1B-1B-2-93GS-00-1, -2, -3; -93WD-00-1; and CITS Parameter File (CPF)		*						b	-	-	-
A3.5.5.4. Remove and Install LRUs TR: TO 1B-1B-2-93JG-40-1, -2											
A3.5.5.4.1. Directional Finding Encoder								-	-	-	-
A3.5.5.4.2. Encoder								-	-	-	-
A3.5.5.4.3. Bands 4/5 receive antennas								-	-	-	-
A3.5.5.4.4. Bands 6 and 7 spiral receive antennas								-	-	-	-
A3.5.5.4.5. Band 8 spiral receiver antenna								-	-	-	-
A3.5.5.4.6. Band 6 antenna directional receiver								-	-	-	-
A3.5.5.4.7. Band 7 antenna directional receiver								-	-	-	-
A3.5.5.4.8. Band 8 antenna directional receiver								-	-	-	-
A3.5.5.4.9. Bands 1-3 blade antenna								-	-	-	-
A3.5.5.4.10. Band 6 analysis antenna								-	-	-	-
A3.5.5.4.11. Band 7 analysis antenna								-	-	-	-

B-1 TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A3.5.5.4.12. Band 8 analysis antenna								-	-	-	-
A3.5.5.4.13. Band 6 interferometer antenna								-	-	-	-
A3.5.5.4.14. Bands 4-8 receiver	*							-	-	-	-
A3.5.5.4.15. Bands 1-3 receiver								-	-	-	-
A3.5.5.4.16. Frequency channelizer								-	-	-	-
A3.5.5.4.17. Bands 6, 7 and 8 aft antenna directional receiver								-	-	-	-
A3.5.5.4.18. Interferometer receiver								-	-	-	-
A3.5.6. Active subsystem											
A3.5.6.1. Theory of Operation TR: TO 1B-1B-2-93GS-00-1, -2, -3								B	B	-	-
A3.5.6.2. Perform Waveform Generator Data Load								-	-	-	-
A3.5.6.3. Perform Ground Readiness Test (GRT) TR: TO 1B-1B-2-40JG-93-1											
A3.5.6.3.1. Band 4 forward transmitter								-	-	-	-
A3.5.6.3.2. Band 4 aft transmitter								-	-	-	-
A3.5.6.3.3. Band 5 forward transmitter								-	-	-	-
A3.5.6.3.4. Band 5 aft transmitter								-	-	-	-
A3.5.6.3.5. Band 6 left transmitter								-	-	-	-
A3.5.6.3.6. Band 6 right transmitter								-	-	-	-
A3.5.6.3.7. Band 6 aft transmitter								-	-	-	-
A3.5.6.3.8. Band 7 left transmitter								-	-	-	-
A3.5.6.3.9. Band 7 right transmitter								-	-	-	-
A3.5.6.3.10. Band 7 aft transmitter								-	-	-	-
A3.5.6.3.11. Band 8 left transmitter								-	-	-	-
A3.5.6.3.12. Band 8 right transmitter								-	-	-	-
A3.5.6.3.13. Band 8 aft transmitter								-	-	-	-
A3.5.6.4. Isolate Malfunctions TR: TOs 1B-1B-2-93-8-1; -93GS-00-1, -2, -3;-93WD-00-1 and CITS Parameter File (CPF)		*						b	-	-	-
A3.5.6.5. Remove and Install LRUs TR: TOs 1B-1B-2-93JG-10-1, -2, -3											
A3.5.6.5.1. Band 4 forward transmitting antenna								-	-	-	-
A3.5.6.5.2. Band 5 forward transmitting antenna								-	-	-	-
A3.5.6.5.3. Band 4 aft transmitting antenna								-	-	-	-
A3.5.6.5.4. Band 5 aft transmitting antenna								-	-	-	-

B-1 TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A3.5.6.5.5. Bands 4/5 RF source								-	-	-	-
A3.5.6.5.6. Band 4 forward transmitter								-	-	-	-
A3.5.6.5.7. Band 4 aft transmitter								-	-	-	-
A3.5.6.5.8. Band 5 forward transmitter								-	-	-	-
A3.5.6.5.9. Band 5 aft transmitter								-	-	-	-
A3.5.6.5.10. Band 6 forward transmitter antenna								-	-	-	-
A3.5.6.5.11. Band 6 aft transmitter antenna								-	-	-	-
A3.5.6.5.12. Band 6 RF source								-	-	-	-
A3.5.6.5.13. Band 6 transmitter								-	-	-	-
A3.5.6.5.14. Band 6 driver								-	-	-	-
A3.5.6.5.15. Band 7 left forward transmitter antenna								-	-	-	-
A3.5.6.5.16. Band 7 right forward transmitter antenna	*							-	-	-	-
A3.5.6.5.17. Band 7 aft transmitter antenna	*							-	-	-	-
A3.5.6.5.18. Band 7 function 1122 fwd antenna								-	-	-	-
A3.5.6.5.19. Band 7 function 1122 aft antenna								-	-	-	-
A3.5.6.5.20. Band 7 RF source								-	-	-	-
A3.5.6.5.21. Band 7 function 1122 switch								-	-	-	-
A3.5.6.5.22. Band 7 transmitter								-	-	-	-
A3.5.6.5.23. Band 7 function 1122 sector select switch								-	-	-	-
A3.5.6.5.24. Band 7 driver								-	-	-	-
A3.5.6.5.25. Band 7 waveguide								-	-	-	-
A3.5.6.5.26. Band 8 forward transmitter antenna								-	-	-	-
A3.5.6.5.27. Band 8 aft transmitter antenna								-	-	-	-
A3.5.6.5.28. Band 8 function 1122 fwd antenna								-	-	-	-
A3.5.6.5.29. Band 8 function 1122 aft antenna								-	-	-	-
A3.5.6.5.30. Band 8 RF source								-	-	-	-
A3.5.6.5.31. Band 8 driver-transmitter								-	-	-	-
A3.5.6.5.32. Band 8 function 1122 switch		*						-	-	-	-
A3.5.6.5.33. Band 8 function 1122 sector select switch								-	-	-	-
A3.5.6.5.34. Band 8 waveguide								-	-	-	-
A3.5.6.5.35. Band 6, 7 and 8 electronic beam forming unit								-	-	-	-

B-1 TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A3.5.6.5.36. Waveform generator								-	-	-	-
A3.5.7. Passive subsystem											
A3.5.7.1. Theory of Operation TR: TOs 1B-1B-2-93GS-00-1, -2, -3								B	B	-	-
A3.5.7.2. Perform Ground Readiness Test (GRT) TR: TO 1B-1B-2-40JG-93-1								2b	-	-	-
A3.5.7.3. Perform firepulse checkout TR: TO 1B-1B-2-93JG-30-1								-	-	-	-
A3.5.7.4. Isolate Malfunctions TR: TOs 1B-1B-2-40JG-93-1; -93GS-00-1; -93WD-00-1, -2, -3		*						b	-	-	-
A3.5.7.5. Remove and Install LRUs TR: TO 1B-1B-2-93JG-30-1											
A3.5.7.5.1. EXCM controller								-	-	-	-
A3.5.7.5.2. EXCM safety switch								-	-	-	-
A3.5.8. Warning subsystem											
A3.5.8.1. Theory of Operation TR: TO 1B-1B-2-93GS-00-1, 2, -3								B	B	-	-
A3.5.8.2. Perform Ground Readiness Test (GRT) TR: TO 1B-1B-2-40JG-93-1								-	-	-	-
A3.5.8.3. Isolate Malfunctions TR: TOs 1B-1B-2-93-8-1; -93GS-00-1, -2, -3; -93WD-00-1 and CITS Parameter File (CPF)		*						b	-	-	-
A3.5.9. Remove and Install LRUs TR: TO 1B-1B-2-93JG-80-1											
A3.5.9.1. Tail Warning function receiver processor								-	-	-	-
A3.5.9.2. Tail Warning function antenna assembly								-	-	-	-
A3.5.9.3. ALE-50 Towed Decoy											
A3.5.9.3.1. Theory of Operation TR: TO 1B-1B-2-93GS-00-1, -2								B	-	-	-
A3.5.9.3.2. Perform BIT								-	-	-	-
A3.5.9.3.3. Perform Operational Checkout								-	-	-	-
A3.5.9.3.4. Isolate Malfunctions								-	-	-	-
A3.5.9.3.5. Remove and Install LRUs TR: TO 1B-1B-2-93JG-10-3											
A3.5.9.3.5.1. Control Display Unit								-	-	-	-
A3.5.9.3.5.2. Circuit Breaker Panel								-	-	-	-
A3.5.9.3.5.3. Power Supply								-	-	-	-

B-1 TRAINING REQUIREMENTS

STS 2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A3.5.9.3.5.4. Transformer/Rectifier								-	-	-	-
A3.5.9.3.5.5. Multi-Platform Launch Controller/Improved Multi-Platform Launch Controller								-	-	-	-
A3.5.9.3.5.6. Ground Safe/Arm Switch								-	-	-	-
A3.5.9.3.5.7. System Interface Unit								-	-	-	-
A3.5.9.3.5.8. Launcher Assembly/Dual-Capable Launcher								-	-	-	-
A3.5.9.3.5.9. Data link terminal								-	-	-	-
A3.5.9.3.6. Memory Loader Verifier Set AN/USQ-131 (MLVS)											
A3.5.9.3.6.1. Use and Operation TR: 31S-2USQ-131-1								-	-	-	-
A3.5.9.3.6.2. Perform Software Loading and Verification TR: 31S-2USQ-131-1								-	-	-	-

B-2 TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
ATTACHMENT 4											
NOTE 1: In addition to Attachment 2, the tasks and knowledge in this attachment will be performed by personnel in the J3ABR2A533C-001 course.											
NOTE 2: All course requirements are trained in the 3-level wartime course. The 7-level in-residence course is not taught in wartime.											
NOTE 3: Users are responsible for annotating training references to identify current references pending STS revision.											
NOTE 4: Items marked in columns 2A or 2B marked with a (*R) are optional core tasks for ANG and AFRC.											
NOTE 5: Address comments and recommended changes through the MAJCOM Functional Managers to the AETC Training Manager, DSN 736-7899.											
A4.1. ON-BOARD TEST SYSTEM (OBTS)											
A4.1.1. Functional Theory of Operation TR: TOs 1B-2A-2-31GS-00-1, -40GS-00-1								A	B	-	-
A4.1.2. Purpose TR: TO 1B-2A-2-31GS-00-1								A	-	-	-
A4.1.3. Interface with DAS systems TR: TOs 1B-2A-2-93GS-00-1								A	B	-	-
A4.1.4. Use OBTS Data and OBTS Digital Computer System (ODCS) Reports for fault isolation of Aircraft Systems Malfunctions TR: TO 1B-2A-2-40GS-00-1 and applicable system GS-00-1								-	-	-	-
A4.1.5. Login/Logout OGPII TR: Software Users Manual								-	-	-	-
A4.1.6. Produce/Recreate Debrief Reports TR: TO 31S5-4-2340-1								-	-	-	-
A4.1.7. Run Predefined Text and Graphics Reports TR: TO 31S5-4-2340-1								-	-	-	-
A4.1.8. Produce Ad-Hoc Reports TR: TO 31S5-4-2340-1								-	-	-	-
A4.2. MULTIPLEX BUS SYSTEM											
A4.2.1. Purpose TR: TO 1B-2A-2-40GS-00-1								A	B	-	-
A4.2.2. Functional theory of operation TR: TO 1B-2A-2-40GS-00-1								B	B	-	-
A4.2.3. Isolate Malfunctions		*						b	-	-	-
A4.2.4. Remove and Install TR: TO 1B-2A-2-27GS-00-1											
A4.2.4.1. Bus connectors								-	-	-	-
A4.2.4.2. Bus terminators								-	-	-	-
A4.2.4.3. Bus couplers								-	-	-	-

B-2 TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A4.3. FLIGHT MANAGEMENT SYSTEM TR: 1B-2A-2-22GS-00-1											
A4.3.1. Purpose								A	B	-	-
A4.3.2. Interface with DMS								B	B	-	-
A4.3.3. Perform OFP Load	*							-	-	-	-
A4.3.4. Perform Mission Data Load		*						-	-	-	-
A4.3.5. Perform Classified Data Erase	*							-	-	-	-
A4.4. DEFENSIVE SYSTEMS ORGANIZATIONAL LEVEL MAINTENANCE											
A4.4.1. Defensive management processors (ZSR-61 system)											
A4.4.1.1. Theory of Operation TR: TO 1B-2A-2-93GS-00-1								B	B	-	-
A4.4.1.2. Isolate Malfunctions TR: TOs 1B-2A-2-93GS-00-1, -93WD-00-1		*						-	-	-	-
A4.4.1.3. Remove/Install Processor TR: 1B-2A-2-93JG-50-1		*						-	-	-	-
A4.4.2. AN/APR-50 Receiver (Threat emitter location system)											
A4.4.2.1. Theory of Operation TR: TO 1B-2A-2-93GS-00-1								B	B	-	-
A4.4.2.2. Perform preprocessor data load TR: TO 1B-2A-2-93JG-50-1		*						-	-	-	-
A4.4.2.3. Perform operational check TR: TO 1B-2A-2-40JG-10-1	*							-	-	-	-
A4.4.2.4. Isolate Malfunctions TR: TOs 1B-2A-2-93GS-00-1, -93WD-00-1		*						-	-	-	-
A4.4.2.5. Remove/Install TR: TO 1B-2A-2-93JG-50-1											
A4.4.2.5.1. Band -1, -2, -3 Receiver Tasks 93-52-111-2-3	*							-	-	-	-
A4.4.2.5.2. Band-4 Receiver Tasks 93-52-111-2, -3	*							-	-	-	-
A4.4.2.5.3. Preprocessor Tasks 93-52-109-2, -3								-	-	-	-
A4.4.2.5.4. Processor Tasks 93-52-107-2, -3		*						-	-	-	-
A4.4.2.5.5. RF front end – Band 1 Tasks 93-52-101-2, -3								-	-	-	-

B-2 TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A4.4.2.5.6. RF front end – Band 2/3 Tasks 93-52-103-2, -3								-	-	-	-
A4.4.2.5.7. RF front end – Band 3 Tasks 93-52-105-2, -3	*							-	-	-	-
A4.4.2.5.8. Band-1 Antenna								-	-	-	-
A4.4.2.5.9. Band-2 Antenna								-	-	-	-
A4.4.2.5.10. Band-3 Antenna	*							-	-	-	-
A4.4.2.5.11. Band-4 Antenna	*							-	-	-	-
A4.4.2.5.12. Aft junction box								-	-	-	-
A4.4.2.5.13. Cable compensation unit								-	-	-	-
A4.4.2.5.14. Phase matched cables								-	-	-	-
A4.4.2.5.15. Semi-rigid coaxial cables								-	-	-	-
A4.5. PILOT ALERT SYSTEM TR: TO 1B-2A-2-31GS-00-1											
A4.5.1. Theory of Operation								A	B	-	-
A4.5.2. Perform operation check								-	-	-	-
A4.5.3. Isolate Malfunctions								-	-	-	-
A4.5.4. Perform Leak Test								-	-	-	-
A4.5.5. Perform Purge Test								-	-	-	-
A4.5.6. Remove/Install TR: TO 1B-2A-2-31JG-50-1											
A4.5.6.1. Sensor								-	-	-	-
A4.5.6.2. Processor								-	-	-	-
A4.5.6.3. Dehumidifier (Desiccant)								-	-	-	-
A4.6. SPECIAL PURPOSE TEST EQUIPMENT TR: Applicable Tos											
A4.6.1. Microcircuit Programmer (MLV) TR: 33D7-159-1		*						-	-	-	-
A4.6.2. AN/GSM-352 Antenna system test set TR: 33D7-135-1		*						-	-	-	-
A4.6.3. AN/ALM-280 Enhanced Automated Special Test Equipment TR: 33D7-13-205-1		*						-	-	-	-

B-2 TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
Attachment 5											
NOTE 1: This attachment identifies the Air Force standardized STS Electronic Fundamentals and requirements.											
NOTE 2: Users may annotate additional devices or circuits not identified by this attachment that are specific to their AFSC IAW AFI 36-2201.											
NOTE 3: All course requirements are taught in the resident wartime course.											
NOTE 4: Coded items in column 4 with parentheses () are taught in the resident course at Sheppard AFB TX.											
A5.1. BASIC TERMS TR: TOs 31-1-141-2, -5											
A5.1.1 Metric Notation								B	-	-	-
A5.1.2. Direct Current (DC) terms								B	-	-	-
A5.1.3. Alternating Current (AC) terms								B	-	-	-
A5.2. BASIC CIRCUITS TR: TOs 31-1-141-2, -5											
A5.2.1. Theory of Operation								B	-	-	-
A5.2.2. Troubleshoot Circuits								-	-	-	-
A5.3. BASIC CIRCUIT CALCULATIONS TR: TO 31-1-141-5											
A5.3.1. DC								B	-	-	-
A5.3.2. AC								B	-	-	-
A5.4. RESISTORS TR: TOs 31-1-141-2, -15											
A5.4.1. Theory of Operation								B	-	-	-
A5.4.2. Isolate faulty resistors								-	-	-	-
A5.4.3. Color code								-	-	-	-
A5.5. RELAYS/SOLENOIDS TR: TOs 31-1-141-2, -3											
A5.5.1. Relay Theory of Operation								B	-	-	-
A5.5.2. Isolate faulty relays								-	-	-	-
A5.5.3. Solenoid Theory of Operation								-	-	-	-
A5.5.4. Isolate faulty solenoids								-	-	-	-
A5.6. INDUCTORS TR: TOs 31-1-141-2. -15											
A5.6.1. Theory of Operation								B	-	-	-
A5.6.2. Isolate faulty inductors								-	-	-	-
A5.6.3. Calculations								-	-	-	-
A5.7. CAPACITORS TR: TOs 31-1-141-2, -5, -15											
A5.7.1. Theory of Operation								B	-	-	-

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A5.7.2. Isolate faulty capacitors								-	-	-	-
A5.7.3. Calculations								-	-	-	-
A5.7.4. Color code								-	-	-	-
A5.8. TRANSFORMERS TR: TOs 31-1-141-2, -5, -15											
A5.8.1. Theory of Operation								B	-	-	-
A5.8.2. Isolate faulty transformers								2b	-	-	-
A5.8.3. Calculations								B	-	-	-
A5.9. THREE PHASE TRANSFORMERS TR: TOs 31-1-141-2, -15											
A5.9.1. Theory of Operation								B	-	-	-
A5.9.2. Isolate faulty three phase transformers								-	-	-	-
A5.10. DC MOTORS TR: TOs 31-1-141-2, -9											
A5.10.1. Theory of Operation								B	-	-	-
A5.10.2. Troubleshoot DC motors								-	-	-	-
A5.11. AC MOTORS TR: TOs 31-1-141-2, -9											
A5.11.1. Theory of Operation								B	-	-	-
A5.11.2. Trouble shoot AC motors								-	-	-	-
A4.12. DC GENERATORS TR: TOs 31-1-141-2, -9, -13											
A5.12.1. Theory of Operation								B	-	-	-
A5.12.2. Troubleshoot DC generators								-	-	-	-
A5.13. AC GENERATORS TR: TOs 31-1-141-2, -9, -13											
A5.13.1. Theory of Operation								B	-	-	-
A5.13.2. Troubleshoot AC generators								-	-	-	-
A5.14. ALTERNATORS TR: TOs 31-1-141-2,-9											
A5.14.1. Theory of Operation								-	-	-	-
A5.14.2. Troubleshoot alternators								-	-	-	-
A5.15. SYNCHRO/SERVOS TR: TOs 31-1-141-2, -9											
A5.15.1. Theory of Operation								B	-	-	-
A5.15.2. Troubleshoot synchro/servos								-	-	-	-

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A5.16. CHOPPERS (SYNCHRONOUS VIBRATORS) TR: TO 31-1-141-2											
A5.16.1. Theory of Operation								-	-	-	-
A5.16.2. Isolate faulty choppers								-	-	-	-
A5.17. TRANSDUCERS TR: TOs 31-1-141-3, -13											
A5.17.1. Theory of Operation								B	-	-	-
A5.17.2. Isolate faulty transducers								-	-	-	-
A5.18. METER MOVEMENTS TR: TOs 31-1-141-2, -7, -14C											
A5.18.1. Theory of Operation								-	-	-	-
A5.18.2. Isolate faulty meter movements								-	-	-	-
A5.19. SOLID STATE DIODES TR: TOs 31-1-141-4, -15											
A5.19.1. Theory of Operation								B	-	-	-
A5.19.2. Isolate faulty solid state diodes								-	-	-	-
A5.19.3. Specifications								-	-	-	-
A5.19.4. Color code								-	-	-	-
A5.20. BIPOLAR JUNCTION TRANSISTORS TR: TO 31-1-141-4											
A5.20.1. Theory of Operation								-	-	-	-
A5.20.2. Isolate faulty transistors								-	-	-	-
A5.20.3. Specifications								-	-	-	-
A5.21. INTEGRATED CIRCUITS TR: TO 31-1-141-4											
A5.21.1. Familiarization								B	-	-	-
A5.21.2. Isolate faulty integrated circuits								-	-	-	-
A5.21.3. Specifications								-	-	-	-
A5.22. SOLID STATE SPECIAL PURPOSE DEVICES TR: TO 31-1-141-4											
A5.22.1. Theory of Operation											
A5.22.1.1. Silicon Controlled Rectifier (SCR)								B	-	-	-
A5.22.1.2. Zener diode								B	-	-	-
A5.22.1.3. Tunnel diode								B	-	-	-
A5.22.1.4. Light Emitting Diode (LED)								B	-	-	-
A5.22.1.5. Liquid Crystal Diode (LCD)								B	-	-	-

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A5.22.1.6. Unijunction Transistor (UJT)								B	-	-	-
A5.22.1.7. Junction Field Effect Transistor (JFET)								B	-	-	-
A5.22.1.8. Metal Oxide Semi-Conductor Field Effect Transistor (MOSFET)								B	-	-	-
A5.22.2. Isolate faulty special purpose devices								-	-	-	-
A5.23. ELECTRON TUBES											
A5.23.1. Theory of Operation								-	-	-	-
A5.23.2. Isolate faulty electron tubes								-	-	-	-
A5.23.3. Specifications								-	-	-	-
A5.24. CATHODE RAY TUBES (CRT) TR: TOs 31-1-141-1, -3											
A5.24.1. Theory of Operation								B	-	-	-
A5.24.2. Isolate faulty CRTs								-	-	-	-
A5.25. SOLDER/DESOLDER TR: TOs 00-25-234, 1-1A-14, 31-1-141-15											
A5.25.1. Terminal connections								2b	-	-	-
A5.25.2. Printed Circuit (PC) boards								-	-	-	-
A5.25.3. Multipin connectors								2b	-	-	-
A5.25.4. Coaxial connectors								2b	-	-	-
A5.26. ASSEMBLE/DISASSEMBLE SOLDERLESS CONNECTORS TR: TOs 1-1A-14, 31-1-141-15											
A5.26.1. Crimp connections								2b	-	-	-
A5.26.2. Coaxial connections								2b	-	-	-
A5.26.3. Multipin connections								2b	-	-	-
A5.27. USE TEST EQUIPMENT TR: TOs 31-1-141-1, -7, -8, -9, -10											
A5.27.1. Analog multimeter								2b	-	-	-
A5.27.2. Oscilloscope								2b	-	-	-
A5.27.3. Signal Generator								(2b)	-	-	-
A5.27.4. Frequency counter								-	-	-	-
A5.27.5. Spectrum Analyzer								(2b)	-	-	-
A5.27.6. Field Strength Tester								-	-	-	-
A5.27.7. Digital multimeter								2b	-	-	-
A5.27.8. Digital logic probe								-	-	-	-
A5.27.9. Capacitor tester								-	-	-	-
A5.27.10. Capacitor substitution box								-	-	-	-

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A5.27.11. DC restorer								-	-	-	-
A5.27.12. Logic current tracer								-	-	-	-
A5.27.13. Tube tester								-	-	-	-
A5.27.14. Logic pulser								-	-	-	-
A5.27.15. Logic analyzer								-	-	-	-
A5.27.16. Signature analyzer								-	-	-	-
A5.27.17. Reflectometer		*						(2b)	-	(3c)	-
A5.28. TRANSISTOR AMPLIFIER CIRCUITS TR: TOs 31-1-141-1, -4											
A5.28.1. Theory of Operation											
A5.28.1.1. Amplifier circuits								B	-	-	-
A5.28.1.2. Stabilization circuits								-	-	-	-
A5.28.1.3. Coupling circuits								-	-	-	-
A5.28.2. Troubleshoot circuits								-	-	-	-
A5.29. ELECTRON TUBE AMPLIFIERS TR: TO 31-1-141-3											
A5.29.1. Theory of Operation								-	-	-	-
A5.29.2. Troubleshoot circuits								-	-	-	-
A5.30. OPERATIONAL AMPLIFIERS (OP AMPS) TR: TO 31-1-141-4											
A5.30.1. Theory of Operation								B	-	-	-
A5.30.2. Isolate faulty operational amplifiers								-	-	-	-
A5.31. MAGNETIC AMPLIFIERS TR: TO 31-1-141-4											
A5.31.1. Theory of Operation								-	-	-	-
A5.31.2. Troubleshoot circuits								-	-	-	-
A5.32. SATURABLE REACTORS TR: TO 31-1-141-4											
A5.32.1. Theory of Operation								-	-	-	-
A5.32.2. Troubleshoot circuits								-	-	-	-
A5.33. POWER SUPPLY CIRCUITS TR: TOs 31-1-141-3, -4, -9, -15											
A5.33.1. Theory of Operation											
A5.33.1.1. Rectifiers								B	-	-	-
A5.33.1.2. Filters								B	-	-	-
A5.33.2. Troubleshoot circuits								-	-	-	-

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A5.34. VOLTAGE REGULATORS TR: TOs 31-1-141-3, -4											
A5.34.1. Theory of Operation								B	-	-	-
A5.34.2. Troubleshoot circuits								-	-	-	-
A5.35. RESISTIVE/CAPACITIVE/INDUCTIVE (RCL) CIRCUITS TR: TOs 31-1-141-2, -5											
A5.35.1. Basic operation								B	-	-	-
A5.35.2. Resonant operation								B	-	-	-
A5.35.3. Troubleshoot circuits								-	-	-	-
A5.35.4. Calculations								-	-	-	-
A5.36. FREQUENCY SENSITIVE FILTERS TR: TO 31-1-141-2											
A5.36.1. Theory of Operation								B	-	-	-
A5.36.2. Troubleshoot circuits								-	-	-	-
A5.36.3. Calculations								-	-	-	-
A5.37. WAVE GENERATION CIRCUITS TR: TOs 31-1-141-3, -4, -10											
A5.37.1. Theory of Operation											
A5.37.1.1. Oscillators								B	-	-	-
A5.37.1.2. Multivibrators								B	-	-	-
A5.37.1.3. Waveshaping circuits								B	-	-	-
A5.37.2. Troubleshoot circuits								-	-	-	-
A5.38. LIMITER CIRCUITS TR: TO 31-1-141-4											
A5.38.1. Theory of operation											
A5.38.1.1. Diode								B	-	-	-
A5.38.1.2. Zener diode								B	-	-	-
A5.38.1.3. Transistor								B	-	-	-
A5.38.2. Troubleshoot circuits								-	-	-	-
A5.39. CLAMPER CIRCUITS TR: TO 31-1-141-4											
A5.39.1. Theory of Operation								-	-	-	-
A5.39.2. Troubleshoot circuits								-	-	-	-

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A5.40. DIGITAL NUMBERING SYSTEMS TR: TO 31-1-141-5											
A5.40.1. Conversion											
A5.40.1.1. Binary								B	-	-	-
A5.40.1.2. Octal								B	-	-	-
A5.40.1.3. Hexadecimal								B	-	-	-
A5.40.2. Math operations											
A5.40.2.1. Binary								B	-	-	-
A5.40.2.2. Octal								B	-	-	-
A5.40.2.3. Hexadecimal								B	-	-	-
A5.40.3. Binary code systems								B	-	-	-
A5.41. DIGITAL LOGIC FUNCTIONS TR; TOs 31-1-141-4, -9											
A5.41.1. Theory of Operation											
A5.41.1.1. Main Logic Gates								B	-	-	-
A5.41.1.2. Flip-Flops								B	-	-	-
A5.41.2. Troubleshoot circuits								-	-	-	-
A5.41.3. Logic families											
A5.41.3.1. Transistor to Transistor Logic (TTL)								B	-	-	-
A5.41.3.2. Complementary Metal Oxide Semi-Conductor (CMOS)								B	-	-	-
A5.42. BOOLEAN EQUATIONS TR: TO 31-1-141-5											
A5.42.1. Diagram to equation								B	-	-	-
A5.42.2. Equation to diagram								B	-	-	-
A5.42.3. Simplify expressions								-	-	-	-
A5.43. COMPUTERS TR: TOs 31-1-141-6C, -9											
A5.43.1. Operation principles								B	-	-	-
A5.43.2. Load programs								B	-	-	-
A5.43.3. Write and debug programs								-	-	-	-
A5.43.4. Isolate faulty major computer units								-	-	-	-
A5.43.5. Troubleshoot computer subassemblies or circuits								-	-	-	-
A5.43.6. Types of memories								B	-	-	-
A5.43.7. Peripheral devices								B	-	-	-
A5.43.8. Programming languages								-	-	-	-

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A5.44. MICROPROCESSOR CONTROLLED SYSTEMS TR: TOs 31-1-141-6C, -9											
A5.44.1. Theory of operation											
A5.44.1.1. Basic								B	-	-	-
A5.44.1.2. Universal								B	-	-	-
A5.44.1.3. 8085 Specific								B	-	-	-
A5.44.2. Isolate faulty microprocessors								-	-	-	-
A5.45. LOGIC CIRCUITS TR: TOs 31-1-141-3, -5, -9, -13											
A5.45.1. Theory of Operation											
A5.45.1.1. Counters								B	-	-	-
A5.45.1.2. Registers								-	-	-	-
A5.45.1.3. Combinational logic circuits								-	-	-	-
A5.45.2. Troubleshoot circuits								-	-	-	-
A5.46. DIGITAL TO ANALOG AND ANALOG TO DIGITAL CONVERTERS TR: TO 31-1-141-13											
A5.46.1. Theory of Operation											
A5.46.1.1. Weighted Resistor digital to analog (D/A)								B	-	-	-
A5.46.1.2. Approximation analog to digital (A/D)								B	-	-	-
A5.46.1.3. Ramp analog to digital (A/D)								B	-	-	-
A5.46.2. Isolate faulty converters								-	-	-	-
A5.47. TRANSMISSION LINES TR: TOs 31-1-141-7, -8, -9, -11											
A5.47.1. Theory of Operation								B	-	-	-
A5.47.2. Perform measurements								-	-	-	-
A5.47.3. Calculations								-	-	-	-
A5.47.4. Isolate faulty transmission lines								-	-	-	-
A5.48. WAVEGUIDES TR: TOs 31-1-141-9, -11											
A5.48.1. Theory of Operation								B	-	-	-
A5.48.2. Isolate faulty waveguides								-	-	-	-
A5.49. MICROWAVE OSCILLATORS AND AMPLIFIERS TR: TOs 31-1-141-3, -10, -11											
A5.49.1. Theory of Operation								B	-	-	-

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A5.49.2. Tune or adjust								-	-	-	-
A5.49.3. Isolate faulty microwave oscillators and amplifiers								-	-	-	-
A5.50. RESONANT CAVITIES TR: TOs 31-1-141-3, -9, -11											
A5.50.1. Theory of Operation								B	-	-	-
A5.50.2. Isolate faulty resonant cavities								-	-	-	-
A5.50.3. Tune or adjust								-	-	-	-
A5.51. TRANSMITTERS TR: TOs 31-1-141-4, -9, -13											
A5.51.1. Theory of Operation											
A5.51.1.1. Amplitude Modulation								B	-	-	-
A5.51.1.2. Frequency Modulation								B	-	-	-
A5.51.1.3. Single Side Band								B	-	-	-
A5.51.1.4. Pulse Modulation								B	-	-	-
A5.51.2. Troubleshoot circuits								-	-	-	-
A5.52. RECEIVERS TR: TOs 31-1-141-4, -9, -13											
A5.52.1. Theory of Operation											
A5.52.1.1. Amplitude Modulation								B	-	-	-
A5.52.1.2. Frequency Modulation								B	-	-	-
A5.52.1.3. Single Side Band								B	-	-	-
A5.52.1.4. Pulse Modulation								B	-	-	-
A5.52.2. Troubleshoot circuits								-	-	-	-
A5.53. TRANSMISSION POWER TR: TOs 31-1-141-7, -8, -11											
A5.53.1. Perform measurements								-	-	-	-
A5.53.2. Calculations								-	-	-	-
A5.54. ANTENNAS TR: TO 31-1-141-12											
A5.54.1. Theory of Operation								B	-	-	-
A5.54.2. Perform alignments								-	-	-	-
A5.54.3. Isolate faulty antennas								-	-	-	-
A5.55. MICROPHONES TR: TO 31-1-141-3											
A5.55.1. Theory of Operation								-	-	-	-
A5.55.2. Troubleshoot circuits								-	-	-	-

ELECTRONIC FUNDAMENTALS TRAINING REQUIREMENTS

2A5X3C

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. Core Tasks		3. Certification For OJT					4. Proficiency Codes Used To Indicate Training/Information Provided (See Note)			
	A	B	A	B	C	D	E	A 3 Skill Level	B 5 Skill Level	C 7 Skill Level	
	5	7	Training Start	Training Complete	Trainee Initials	Trainer Initials	Certifier Initials	(1) Crse	(1) CDC	(1) Crse	(2) CDC
A5.56. SPEAKERS											
A5.56.1. Theory of Operation								-	-	-	-
A5.56.2. Troubleshoot circuits								-	-	-	-
A5.57. PHOTSENSITIVE DEVICES TR: TOs 31-1-141-3, -4											
A5.57.1. Theory of Operation								-	-	-	-
A5.57.2. Isolate faulty photosensitive devices								-	-	-	-
A5.58. DISPLAY TUBES TR: TO 31-1-141-3											
A5.58.1. Theory of Operation								-	-	-	-
A5.58.2. Isolate faulty display tubes								-	-	-	-
A5.59. SUPPORT SUBJECTS TR: TOs 31-1-141-1, 00-25-234 AFR 80-23, 700-13											
A5.59.1. Practice safety applicable to electronics								B	-	-	-
A5.59.2. First aid for electrical shock								B	-	-	-
A5.59.3. Electrostatic discharge (ESD) control								B	-	-	-
A5.59.4. Electromagnetic effects on electronic equipment											
A5.59.4.1. Pulse (EMP)								-	-	-	-
A5.59.4.2. Interference (EMI)								-	-	-	-
A5.59.4.3. Compatibility (EMC)								-	-	-	-

SECTION B - COURSE OBJECTIVE LIST:

4. Measurement: Each proficiency coded STS task or knowledge item taught at the technical school is measured through the use of an objective. An objective is a written instruction for the student so he or she knows what is expected of them to successfully complete training on each task. Each objective is composed of a condition, behavior, and standard; which states what is expected of the student for each task. The condition is the setting in which the training takes place (i.e. TOs, type of equipment, etc.). The behavior is the observable portion of the objective (i.e. perform an operational check). The standard is the level of performance that is measured to ensure the STS proficiency code level is attained. Each objective uses letter code(s) to identify how it is measured. All objectives use the PC code(s) which indicates a progress check is used to measure subject or task knowledge. W indicates a comprehensive written test and is used to measure the subject or task knowledge at the end of a block of instruction. PC/W indicates a subject or task knowledge progress check and a separate measurement of both knowledge and performance elements using a written test.

5. Standard: The standard of written examinations is 65% to 72%, depending on the number of questions on the test. Standards of performance are indicated in the objective and are also indicated on the individual progress check checklist. The checklist is used by the instructor to document each student's progress on each task. Instructor assistance is provided as needed during the progress check, and students may be required to repeat all or part of the behavior until satisfactory performance is attained. Students must satisfactorily complete all PCs prior to taking the written test.

6. Proficiency Level: Review column 4A of the STS to determine the proficiency level of a particular task or knowledge item. Review the course objective list to determine which STS item the objective supports. Review the proficiency code key in Part II, Section A of this CFETP for an explanation of the proficiency codes. Most task performance is taught to the '2b' proficiency level which means the students can do most parts of the task, but does need assistance on the hardest parts of the task (partially proficient). The student can also determine step by step procedures for doing the task. For tasks that are taught to the '3c' proficiency level, students can do all parts of the task and only require a spot check on completed work (competent). The student can also identify why and when a task must be done and why each step is needed.

7. Course Objectives: A detailed listing of initial skills or craftsman course objectives may be obtained by submitting a written request to the AETC Training Manager, 365 TRS/TRR, 609 9th Ave., Stop 242, Sheppard AFB TX, 76311-2335.

SECTION C – SUPPORT MATERIAL:

8. The following list of support materials is not all inclusive; however, it covers the most frequently referenced areas. For further information on the following courses, contact the OPR at:

333 TRS/TTCQS
601 D Street
Keesler AFB, MS 39534-2229
DSN 597-5893

782 TRG
826 Avenue G Suite 4
Sheppard AFB, TX 76311-2867
DSN 736-2568

362 TRS/TRR
613 10th Street
Sheppard AFB, TX 76311-2352
DSN 736-2996

Course Number	Course Title	OPR
*AFQTP 2EXXX-201L	Comm-Electronics Workcenter Managers Handbook	333 TRS
*AFQTP 2EXXX-201LB	C-E Managers Handbook	333 TRS

*Courses can be downloaded from 333 TRS home page at: <http://qflight.kee.aetc.af.mil>

Course Number	Course Title	OPR
**J6ANU00066-038	Air Force Technical Order System (General)	362 TRS
**J6ANU00066-039	Air Force Technical Order System (Advanced)	362 TRS

**These courses are Computer Based Training (CBT), and may be requested as any other course and are listed in AFCAT 36-2223 with ordering procedures.

SECTION D – TRAINING COURSE INDEX:

9. Purpose: This section of the CFETP identifies training courses available for the B-1/B-2 Electronic Warfare Systems Specialty, and shows how the courses are used by each MAJCOM in their career field training programs. For further information on the following courses, contact the OPR at:

365 TRS/TRR
609 9th Ave.
Sheppard AFB, TX 76311-2335
DSN 736-7899

10. Air Force In-Resident Courses:

Refer to AFCAT 36-2223, USAF Formal Schools Catalog, for information on all courses listed in this index.

COURSE NO.	COURSE TITLE	LOCATION	USER
J3ABR2A533C 001	B-1/B-2 Electronic Warfare Systems Apprentice	Sheppard AFB	AF, ANG
J3ACR2A573 001	Craftsman Avionics Course	Sheppard AFB	AF, ANG

11. Extension Course Institute (ECI) Courses:

365 TRS/TRR
609 9th Ave.
Sheppard AFB, TX 76311-2335
DSN 736-7899

COURSE NO.	COURSE TITLE	USER
CDC 2A553C	Bomber Electronic Warfare Systems Journeyman	AF, ANG
CDC 2AX7X	Aerospace Maintenance Craftsman	AF,ANG

12. Exportable Courses:

For further information on the following exportable courses, contact the OPRs at:

367 TRS/TRSS
6058 Aspen Ave
Hill AFB, UT 84056-5805
DSN 777-7830/8741

362 TRS
613 10th Ave
Sheppard AFB, TX 76311-2352
DSN 736-5206

Much of the following Interactive Courseware (ICW) is available from, or under development by 367 TRS/TRSS at Hill AFB Utah. To obtain more information about each course, request a copy of the Courseware Catalog from the 367 TRS/TRSS. Their FAX number is DSN 777-0897 and their customer service number is DSN 777-0160. To request ordering information on hardware, your MAJCOM training POC (for ACC, AMC, and ANG) is the first stop. For personnel under other MAJCOMs, you contact them directly, they will provide you the information required for purchasing the item through them. If you decide to purchase the system, they will FAX you the AF Form 616 to use for an example. The 367 TRSS internet site is:
<http://www.hill.af.mil/367TRSS/findex.htm>. The Hill AFB course catalog can be ordered from DSN 777-0160.

COURSE NO.	COURSE TITLE	OPR	USER
00TVT0000	FOD Prevention (VHS tape)	367 TRSS	AF
00TVT0001	Safety and Radio Frequency (RF) Radiation (VHS tape)	367 TRSS	AF
00TVT0001V1	Troubleshooting Techniques (ICW)	367 TRSS	AF
00TTV0002	Aerospace Ground Equipment Training (ICW)	367 TRSS	AF
00TCB0002V1	Multimeter Familiarization (ICW)	367 TRSS	AF
00CIV0008	Use and Care of Type III Torque Wrenches (ICW)	367 TRSS	AF
00CVT0009	Torque Wrench, Use and Care (VHS tape)	367 TRSS	AF
00TVT0011	Cold Weather Indoctrination (VHS tape)	367 TRSS	AF
00CVT0012	Manual Acft Snow Removal (VHS tape)	367 TRSS	AF
00TVT0017V1	General Aircraft Corrosion Control (VHS tape)	367 TRSS	AF
00TIV1000	Aircraft Marshaling (ICW)	367 TRSS	AF
01SIV8971V5.1.1	-86 Diesel Power Unit Operation (ICW)	367 TRSS	AF
00SIV8972	MD-3A Air Conditioner Operation (ICW)	367 TRSS	AF
00TVT0015	Installation of Aircraft Switch Guards	367 TRSS	AF
01CIV0016	B-1B Emergency Ground Egress	367 TRSS	AF
01CIV0051	B-1B Command Aircraft Systems Training (CAST) General Airplane Information	367 TRSS	AF
01CIV0052	B-1B Hazardous Zones	367 TRSS	AF
01CIV1001	B-1B Safe for Maintenance	367 TRSS	AF
01CIV1615	B-1B Egress System Safety	367 TRSS	AF
01JIV0001	B-1B General Electrical Maintenance, part 1	367 TRSS	AF
01JIV0002	B-1B General Electrical Maintenance, part 2	367 TRSS	AF
01JIV0003	B-1B General Electrical Maintenance, part 3	367 TRSS	AF
01JIV0005	B-1B CITS Parameter Monitor Codes (PMC)	367 TRSS	AF
01JIV0006	B-1B CITS Maintenance Codes	367 TRSS	AF
01JIV0038	B-1B Hardness Critical Procedures (HCP) Check	367 TRSS	AF
01JIV1100	B-1B Panel Types, Location, and Construction	367 TRSS	AF
01JIV1101	B-1B Panel and Secondary Structure	367 TRSS	AF

COURSE NO.	COURSE TITLE	OPR	USER
	Inspection		
01JIV1103	B-1B Forward Equipment Bay (FEB) Panels	367 TRSS	AF
01JIV1134	B-1B Fasteners/Related Hardware	367 TRSS	AF
01JIV2301	B-1B CAST Aircraft Systems and Power Plant	367 TRSS	AF
01JIV4300	B-1B EMUX	367 TRSS	AF
01JIV5500	B-1B CAST CITS/EMUX	367 TRSS	AF
01JIV5501	B-1B Ground Readiness Tests (GRT)	367 TRSS	AF
01SIV1005	B-1B Proximity Switch (Cover/Uncover) Simulated Airborne Conditions	367 TRSS	AF
01SIV2400	B-1B Auxiliary Power Unit Operation	367 TRSS	AF
J6AZU2E066 038	Air Force Technical Order (T.O.) System (Gen)	362 TRS	AF
J6AZU2E066 039	Air Force Technical Order (T.O.) System (Gen) (Adv)	362 TRS	AF
J6AZU2E066 058	Air Force Maintenance Data Collection System	362 TRS	AF
J6AZU2E066 059	Air Force Maintenance Data Collection System	362 TRS	AF
J6AZU2E066 061	Air Force Maintenance Data Collection System Operators Course (Intro)	362 TRS	AF
J6AZU2E066 062	Air Force Maintenance Data Collection System Mid Level Maintenance Mgrs	362 TRS	AF

13. Training Detachment (TD) Courses:

For further information on the TD courses, contact the OPRs at:

372 TRS
912 I Ave., Suite 3
Sheppard AFB, TX 76311-2361
DSN 736-4801

COURSE NO.	COURSE TITLE	OPR	USER
J4AMF/ASF/AST 2A5X3A 007	B-1B Avionics Maintenance (OAS/CEMU Operator Basic)	372 TRS	AF, ANG
J4AMF/ASF/AST	B-1B Avionics Maintenance (OAS/CEMU	372 TRS	AF, ANG

COURSE NO.	COURSE TITLE	OPR	USER
2A5X3A 008	Operator Advanced)		
J4AMF/ASF/AST 2A5X3C 000	B-1B Avionics Systems Craftsman (Comm, Nav & DAS/Comm Nav)	372 TRS	AF, ANG
J4AMF/ASF/AST 2A5X3C 001	B-1B Avionics System Craftsman (Communications, Navigation & Defensive Avionics)	372 TRS	AF, ANG
J4AMF/ASF/AST 2A5X3C 005	B-2 Avionics System Craftsman (Communications, Navigation & Defensive Avionics)	372 TRS	AF
J4AMF/ASF/AST 2A5X3C 006	B-1B Avionics (Comm, Nav, and DAS/Towed Decoy System)	372 TRS	AF, ANG
J4AMF/ASF/AST 2A5X3 000	B-2 Avionics System Craftsman (Common Core)	372 TRS	AF
J4AMF/ASF/AST 2A5X3A-029	B-1B Acft E & E Systems Craftsman (Kapton Wire Repair)	373 TRS	AF, ANG

14. Courses Under Development/Revision:

There are no courses currently under development. This area is reserved.

SECTION E - MAJCOM UNIQUE REQUIREMENTS.

15. Currently only Air Combat Command has a MAJCOM mandatory course list (MMCL). MAJCOMs change mandatory course requirements occasionally. Up-to-date ACC requirements can be obtained at <http://xo.acc.af.mil/xom/XOMM/XOMM.html>. After access, click on “training” and then on “MMCL” Refer to the HQ ACC MMCL for additional information. The below requirements are current as of 17 Feb 00.

COURSE NO.	COURSE TITLE	MDS
2A5X3C-000	Communication, Navigation and Defensive Avionics System Craftsman	B-1
2A5X3C-001	Communication, Navigation and Defensive Avionics System Craftsman	B-1
2A5X3C-005	B-2 Avionics Systems Craftsman (Communication, Navigation, and Defensive Systems)	B-2

Other MAJCOM Courses. Contact the course OPRs at:

HQ ACC LSG / OL-CA
6058 Aspen
Hill AFB, UT 84056-5805
DSN 777-4278

COURSE NO.	COURSE TITLE	OPR
Y140009	ACC Production Superintendent	HQ ACC/LSG
Y140015	ACC Maintenance Instructor	HQ ACC/LSG
Y140020	ACC Maintenance Training Management	HQ ACC/LSG